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ABSTRACT

This manual provides the guidelines and components necessary for the planning and implementation of a basic bicycle skills test program. It is intended for use by enforcement personnel, city and town government officials, education and school groups, civic groups, or other interested persons. An introduction covers use of the manual and the feasibility of a permanent skills test area in the community. Section 1 on planning for the skills test discusses overall coordination, seeking assistance, pitfalls encountered in conducting bicycle skills tests, scope of the activity, scheduling the activity, selection of location, and manpower requirements. Section 2 provides guidelines as well as forms and handout sheets for duplication. These materials pertain to these types of assignments: publicity; laying out the course; registration for the activity; inspection and repair; bicycle registration and/or licensing; administration of the written or oral test (the test is provided); administration of the skills test (tests are provided that detail skill, tests, layout, instructions, real world application, and scoring); distributing handouts, tabulating scores, and awarding prizes; and clean up. A list of resources is provided. (YLB)

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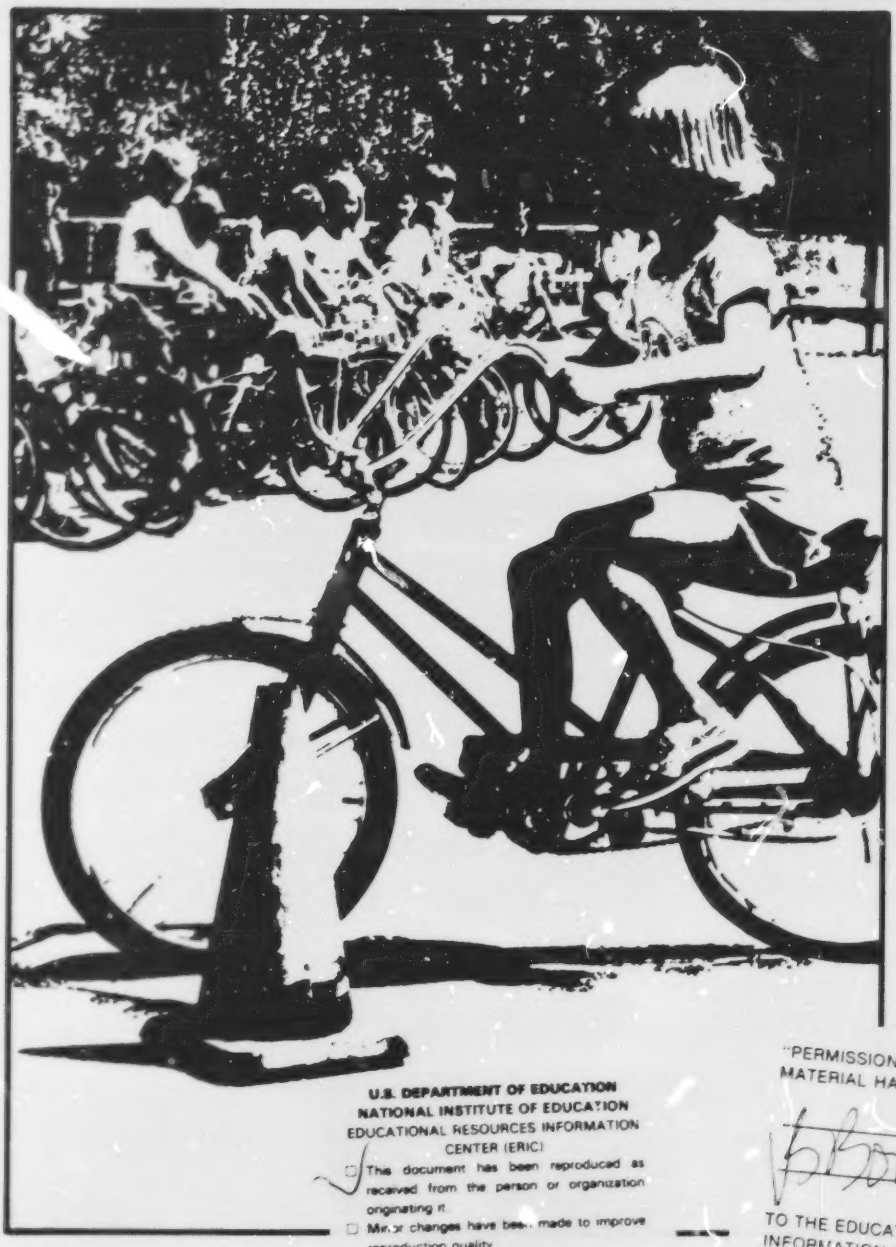
NC Department of Transportation

Bicycle Skills Test Manual



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Bicycle Program

CE040619

This manual was prepared by the University of North Carolina Highway Safety Research Center for the North Carolina Department of Transportation Bicycle Program under the auspices of the Governor's Highway Safety Program. Beverly T. Orr, Project Director.

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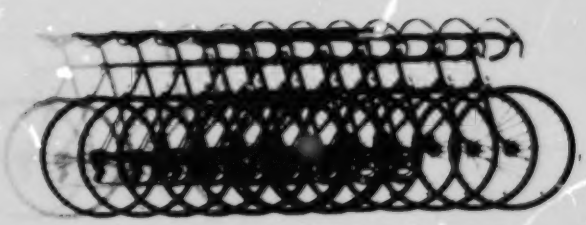
INTRODUCTION



Why a Bicycle Skills Test in the First Place?

The increase in bicycle usage and the related rise in the number of bicyclists injured and killed has been well documented. Studies of these bicycle accidents indicate that the causes include a lack of skills in maneuvering and avoiding obstacles, a lack of knowledge or obedience of traffic laws, and a lack of traffic awareness.

The increase in bicycle accidents has emphasized the unique position that bicyclists occupy in the overall highway safety picture. Bicycles are indeed very specialized vehicles. Riders need to be properly fitted to their bicycle and able to balance, turn, and avoid obstacles with a degree of proficiency. No longer are the cyclists considered pedestrians. They are now bicycle "drivers" who must obey the same rules and regulations as motor vehicle drivers. But because they travel at lower speeds and have less visibility on the roadway, they must take extra precautions in being aware of the traffic around them and making themselves more easily seen in the traffic situations.

A bicycle skills test gives bicyclists the opportunity to find out how proficient they are in handling their bicycles, how well they know the rules of the road, and whether they are conscious of traffic situations. With this evaluation and continued practice, the bicyclists will hopefully become more proficient in handling their bicycles and more aware of their performance in traffic situations, which should, in turn, result in a reduction in bicycle accidents and injuries.

Why a Bicycle Skills Test Manual?

This manual provides guidance in the successful planning of the skills test. Bicycling can be serious business as shown by recent accident figures. Skills testing will make the bicyclists aware of their skill level and provide them with tips, knowledge, and experience to handle their bicycles more safely in today's traffic mix. To impart this knowledge and experience to bicyclists of all ages, interest must be generated in the skills test to assure maximum participation of area bicyclists. Careful planning will assure plenty of advance publicity and will also insure that the skills testing will run smoothly.

Skills testing has generally been known as a bike "rodeo." It has traditionally been publicized as a special event—a competition that often includes awards and prizes. Many rodeos are held during Bicycle Safety Week and are enhanced by other bicycle activities, a parade, or the appearance of a celebrity. However, what is most important is that bicycle skills testing should teach the participants about highway safety as well as bicycle safety.

Many times volunteers will not fully explain to the bicyclists the reason for a specific test or provide a real-world example of why proficiency in the maneuver is necessary. This is primarily due to the fact that these volunteers often lack knowledge and have no guidelines to refer to. This manual provides the detailed instructions needed to make the skills testing activity a worthwhile project.

Who is This Manual For?

The manual may be used by enforcement personnel, city and town government officials, educational and school groups, civic groups, or other interested persons who see the need for bicycle skills test programs.

How is the Manual to be Used?

It is printed in a loose-leaf format so that individual sheets can be removed to photocopy and distribute among the people who conduct the program. This way, all the individuals who are helping to conduct the activity can have explicit instructions and precise descriptions of their responsibilities at their disposal. The manual also provides forms and handout sheets for duplication (e.g., registration and inspection forms, take home practice drills, etc.). The manual can also be used as a reference guide.

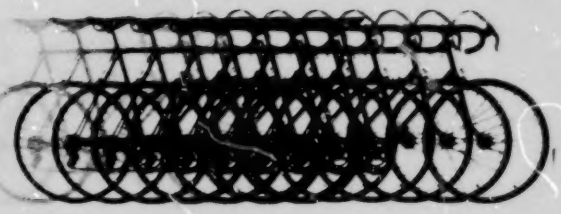
This manual provides the guidelines and components necessary for the planning and implementing of a basic skills test program. In addition, it contains references for obtaining more information if you wish to put on a more colorful, extended activity.

Is a Permanent Skills Test Area Feasible in Your Community?

A permanent skills test course can be set up in your community which would then be available for frequent use. A variety of groups could plan monthly skills test programs using the course. Moreover, a permanent course would be available for frequent use. A variety of groups could plan monthly skills test programs using the course. Moreover, a permanent course would be available at all times to cyclists for practice. A self-test method could be developed so that cyclists could evaluate themselves without the assistance of a monitor.

You can work towards making skills testing a continuous activity by encouraging your local recreation department, schools, civic groups, or police department to set up a permanent skills test course.

PLANNING FOR THE SKILLS TESTS



Overall Coordination

To insure a smooth running program, it is necessary for one person to be in charge of the overall coordination. The major responsibility of this person is to maintain continuous contact with the individuals involved in planning and implementing the activity and to follow-up on details where necessary. The coordinator recruits volunteers, sets up meetings, gives assignments and instructions, and is available to answer questions and handle problems. It is recommended that the skill test coordinator thoroughly review the manual to familiarize himself with the components of the activity and assignments to be carried out.

Seeking Assistance

The scope of the skills testing activity will be determined by the availability of assistance for planning and implementing the program.

The skills test may be initiated by a single group, such as a civic group, police department, parks and recreation department, or school group, or by a combination of people representing these various community segments.

The following listing represents groups who (1) may wish to put on a skills test or (2) may be asked to provide assistance in planning and or implementing the activity. The list also includes what type of **primary** assistance each group might possibly provide in support of the activity initiated by another group.

Civic Groups (Jaycees, Optimists, Women's Clubs)	provide manpower and funding provide materials and prizes
Youth Groups (4-H Clubs, Scouts, etc.)	provide manpower • skilled cyclists • layout skill test course help publicize activity
City Officials, Town Council, City Planners	suggest suitable location for activity provide information on permit requirements
Parks and Recreation	suggest locations (possibly provide park facilities) provide manpower help publicize activity
Police Department	provide manpower • registration and licensing • traffic control • monitoring skills test provide equipment
Media (radio, tv, newspapers)	provide coverage of activity • pre-publicity • on-scene reporting

Educational Groups (primary and secondary, college and university)	help publicize activity provide school facilities for testing area
Local, City or State Department of Transportation	provide equipment
Bicycle Dealers/Local Bike Club	help publicize activity provide manpower • inspection and repair clinic contribute bicycle equipment for prizes provide expertise/bicycle safety handout material
Local merchants/insurance	contribute money to purchase handout material, prizes and advertisements help publicize activity

A Brief Reminder—Pitfalls

The pitfalls reported by groups who have conducted bicycle skills tests (often called "rodeos") are:

1. A lack of sufficient advance publicity prior to the program
2. A lack of sufficient and/or dependable manpower to conduct the skills test
3. Poor scheduling in terms of weather (no rain date), and conflicting events
4. Lack of incentive and/or publicity to attract adults, and all segments of the community—lower, middle, upper class
5. Lack of guidelines

Keep these pitfalls in mind. Using the guidelines which follow, carefully schedule the program, assign the various responsibilities to dependable, qualified persons, and maintain continuous contact with all the individuals involved to insure that all the necessary tasks are carried out.

Scope of the Activity

After the availability of assistance has been determined, the scope of the activity should be established.

1. Will the skills test activity be a part of a multi-activity affair?
   - Will it be a part of an annual Town Day or community fair?
   - Will it be a part of a Bicycle Safety Week which might include a parade, bike tour, and bicycle games?
2. Will it be an ongoing monthly or quarterly activity which is part of a bicycle safety program effort in your community?

Whether the skills test activity is held in conjunction with other activities or all by itself, the components of the skills test also have to be determined.

1. Will it include just the basic maneuvers (skill tests 1-8)?
2. Will it include bicycle registration and/or licensing?
3. Will participants' proficiency be scored and, if so, will participants be broken down by age groups?
4. If scoring is used, what will be done in case of a tie?
5. Will prizes be awarded?

Scheduling the Activity

Factors which should be considered in scheduling the activity are:

1. The frequency of the program need not be one time and the scale does not have to be city-wide. *(IDEALLY, THERE SHOULD BE FREQUENT SKILLS TESTING IN LOCALIZED PROGRAMS.)*
2. The weather and times of bicycle usage - spring, summer and early fall (April-October) are best if infrequent skills tests are planned.
3. A rain date should be set (Saturday with Sunday as a rain date may be best).
4. The program could be part of a bike safety week, or other community events such as fairs, exhibitions, and summer recreation programs through community centers, parks and recreation departments, schools, and churches.
5. If the testing is not held in connection with other planned community events, dates of other activities should be checked out to avoid conflicts which would reduce participation.
6. Time must be given for sufficient and appropriate publicity. Because this is a crucial factor, the activity should not be a spur of the moment decision.

Selection of Location

Suggested places for the course layout are large, flat parking lots. A hard surface is preferable to grass. Check for available shopping center, school, and church lots, parks and recreation facilities, and downtown parking areas.

If the intersection problem is part of the activity, a blocked off intersection will be needed.

Obtain the necessary permissions (legal or otherwise) for using the facilities.

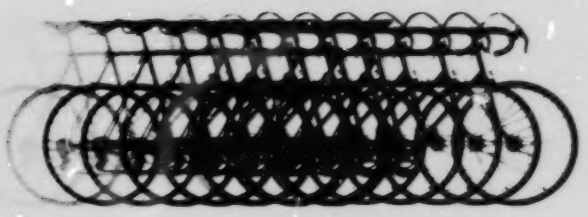
Consideration must be given to the safety of the bicyclists going to and from the selected location. Do not pick a location that would require many of the bicyclists to ride through heavily congested areas or on other hazardous routes to participate in the activity.

Manpower Requirements

Availability of enough dependable personnel to help plan and implement the activity is essential. Once the planning stage has been completed and the date for the skills test determined, many duties will have to be assigned. Depending upon the scope of the skills test activity, the following is a list of duties that will have to be assigned.

Publicity
Laying out the course
Registration for the activity
Inspection and repair
Bicycle registration and/or licensing
Administration of the written or oral test
Administration of the skills test
Distributing handouts, tabulating scores, and awarding prizes
Clean up

ASSIGNMENTS



Publicity

One of the weaknesses of skills testing programs has been a lack of participation by all segments of the community and, in particular, by adults. Often insufficient publicity results in a poor turnout. Publicity for the event has often been geared to youngsters rather than adults. See publicity samples.

The skills test date, conflicting events, or other bicycling activities are important factors affecting the success of the activity. The most important factor, however, is that those people you wish to have participate are MADE AWARE OF THE ACTIVITY SUFFICIENTLY BEFOREHAND. The person in charge of publicity plays a key role in stimulating interest and participation in the skills test activity.

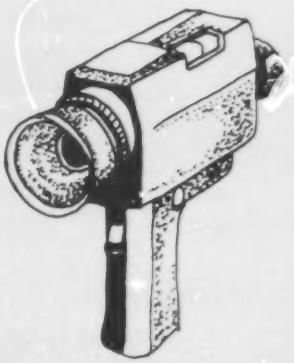
Each community has its own effective and appropriate means of communication. Those involved in publicity efforts should become familiar with the channels for promoting and advertising an activity in their city or town. The following identifies some approaches you may wish to consider in publicizing a skills test activity.

1. If the activity is not planned for a specific group (e.g., 4-H club members only), but is open to the general public, gear the publicity to attract adults as well as children. Publicity should also reach all income levels and races.
2. Notify radio, TV, and newspapers giving the who, what, when, and where of the activity and other details which will encourage participation. Seek information from the various media about deadlines and instructions for preparing releases, feature stories, public service announcements. Ask for assistance in preparation of materials, etc.
3. Notify civic group leaders, student groups, and educational groups personally, by telephone, or by letter.
4. Place event announcement in newsletters published by civic groups, businesses, and schools.
5. Prepare and distribute posters and flyers in schools, churches, local businesses, Y's, park facilities and other appropriate public places.
6. Arrange for media coverage during the activity.
7. Seek funding support for expenses in publicizing the activity.

Try to be creative in your publicity efforts. For example, if adults are not showing interest in participating, perhaps the publicity to stimulate them could be in the form of a challenge—"Just because you're an adult doesn't mean you're an expert when you ride a bicycle" or "Are you a good example for your children?" Encourage volunteer groups to also be creative. Schools for example may have assemblies, speakers, or poster contests on bicycle safety which would promote participation in the skills test activity.

Manpower requirements

The number of people needed to work on the publicity efforts is determined by several factors; the size of the community, the scope of the activity and the audience you are trying to reach. If there is not enough personnel to execute the publicity adequately, it might be best to limit the scope of the activity (e.g., go from a citywide activity to a neighborhood activity).



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ATTENTION!

Bicyclists of All Ages!

The Smithville Jaycees is conducting a Bicycle Skills Test

Where: William F. Smith Memorial Junior High School

When: Saturday, May 14
(Rain date Sunday, May 15)
Registration at 1:00 pm

☆ **Learn Safe Riding Tips!**

☆ **Free Bicycle Inspection!**

☆ **Win Prizes!**

SAMPLE

NEWS RELEASE

Samuel Smith
123 Jones Street
Smithville, NC 45678

For More Information:
Sam Smith
901-2345 (business)
678-9023 (home)

April 15, 1978

FOR IMMEDIATE RELEASE

The Jaycees of Smithville, NC, announced today that they will conduct a bicycle skills test program on Saturday, May 13, at the William F. Smith Memorial Junior High School.

Jayces Chairman Sam Smith explained that his organization was putting on the program to promote safety awareness and the mastery of basic riding skills among bicyclists. Smith encourages parents to come and participate with their children. "Adult riders as well as children can benefit from the program," he said.

Registration begins at 1:00 p.m. and continues until 4:00 p.m. The registration includes a safety inspection of the participant's bicycles.

Participants will be divided into four age groups and scored on their performance in eight skill tests. At 5:30 p.m., the individuals with the highest score in each age group will receive awards. All participants will be given participation certificates.

In the event of rain, the program will be held on Sunday, May 15, beginning at 1:00 p.m.

SAMPLE

Information Sheet
For All News Media

May 5, 1978

TO:	All news media in the Smithville area
FROM:	The Smithville Chapter of the Jaycees (Sam Smith, Chairman 123 Jones Street, Smithville, NC 45678 Business phone 901-2345: Home phone 678-9023)
WHO:	Smithville Chapter of the Jaycees
WHAT:	Bicycle Skills Test Program
WHEN:	Saturday, May 14 (Rain Date: Sunday, May 15) Registration begins at 1:00 p.m.
WHERE:	William F. Smith Memorial Junior High School
WHY:	To promote safety awareness and the mastery of riding skills among bicyclists of all ages
FEATURE ANGLE:	The nationwide increase in the popularity of bicycle riding has been accompanied by an increase in bicycle accidents. Here in Smithville, we are making an effort to do something about this trend by actively promoting safe bicycling.

Laying Out the Course

Manpower requirements

It will take two people one-half hour to lay out each of the skill tests. Using this as a rule of thumb, determine how many volunteers will be needed to lay out the course in advance of the scheduled starting time.

Layout procedures

The following instructions and the layout diagrams contain all the specifications you will need to set up the course.

Before actual laying out of the course:

1. Survey layout area to determine how the course should be positioned.
2. If your layout area is not the right size to accommodate the skills test layout that has been provided, adjustments can be made. Measure the perimeter of your layout area. Then, using the skills test specification sheets, adjust layout to fit in the space available.
3. Obtain the following items:

   Tape measure (ideally 100')
   Chalk (to sketch out part of the course)
   Hammer
   Masonry nails
   String (large spool)
   Scissors or knife
   Lime and dispenser for applying lines on dirt or grass surfaces
   Paint and 3" paint brush for applying lines on asphalt surface
   Traffic cones or sand-filled gallon plastic containers

Additional items you need for skill tests:

Item	Skill Test
Stop sign* and stake	Signaling
Stop sign and stake	Traffic Awareness and Controlled Stop
Red bean bag or heavy, red cloth	Emergency Stop
Stop watch	Balance at Slow Speed

**See the grid pattern of the stop sign following the skills test specification sheets.*

Additional items you need for the intersection problem:

Furring strips (rough-cut wood - 4 pieces approximately 10' long)

Car

Stop sign(s) and stake(s) - (depending on how many permanent stop signs at intersection)

These items are optional:

Whistle, megaphone, or public address system

Rope and stakes (to rope off skill test area, if crowd control is necessary)

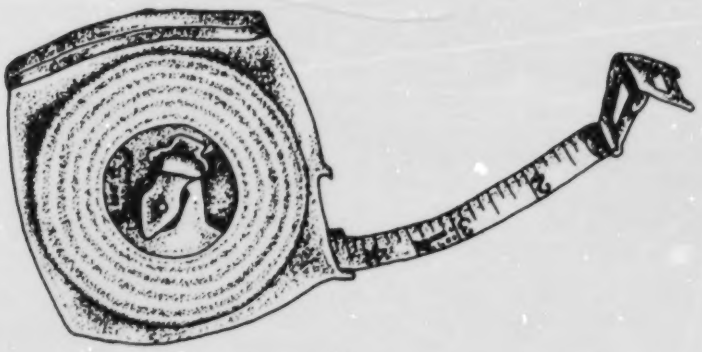
You can obtain most of the supplies from your own home, a local hardware store, or a garden center. You can probably borrow a lime dispenser from a local junior/senior high school's athletic department and traffic cones from your local police department, Division of Highways branch, public works, or utilities department. Whether using cones or containers, determine how many you will need in advance of the activity day.

Be sure to obtain permission in advance from whomever manages the area on which the skill tests are to be conducted for driving nails into and painting lines on the pavement. If you dilute latex paint with equal parts of water, the lines can be washed off.

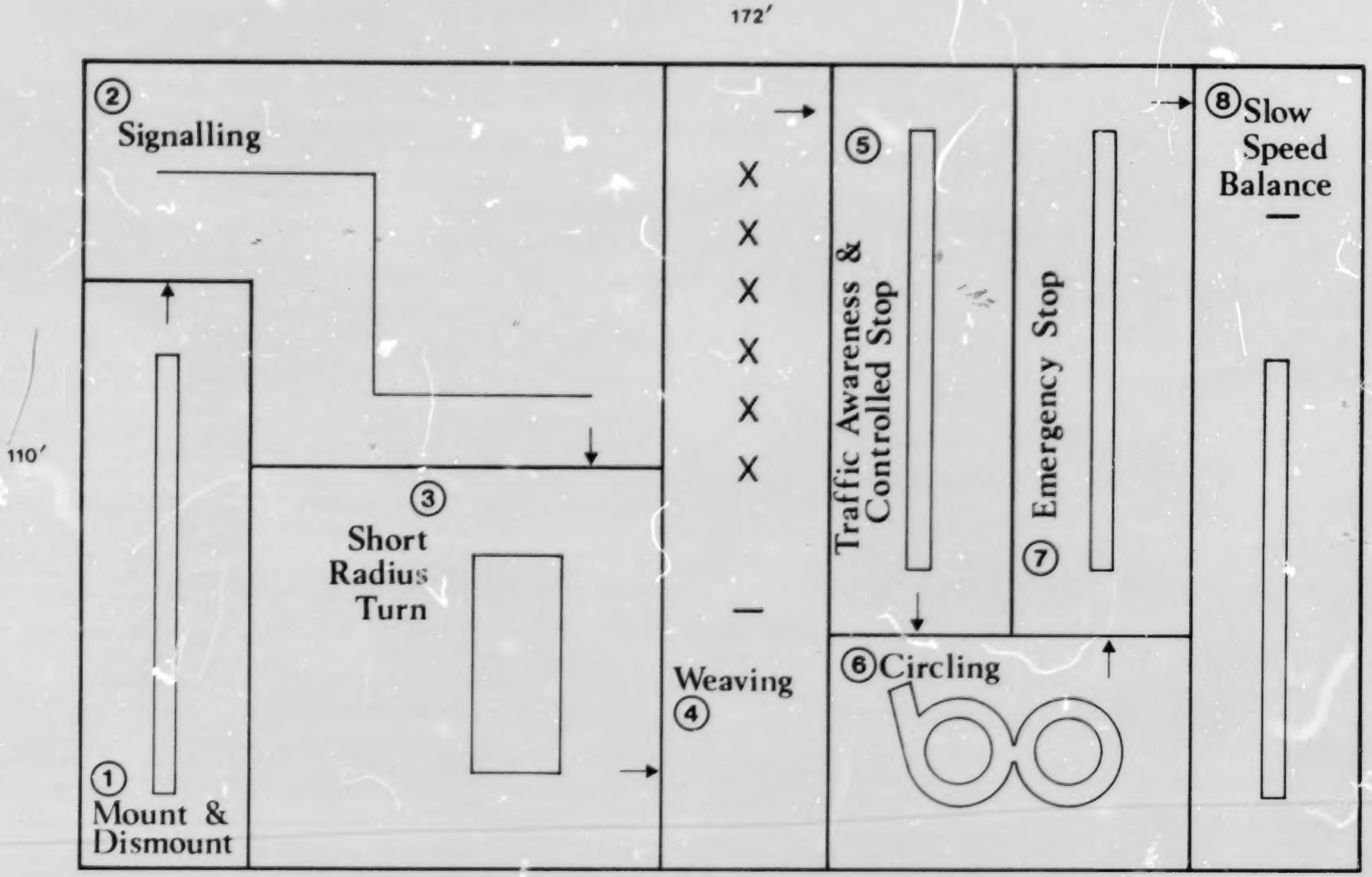
Actual laying out of the course:*

1. The quickest and easiest way to lay out the basic shape of each skill test is to use string and nails for defining the perimeters. Then apply lime or paint outside the lines. Remove the string and nails after the markings have been applied.
2. With a nail as the center point, use string and chalk to make a swinging arc to form circles. When applying the lime or paint, make the markings outside the outer circles and inside the inner circles. Where the circles touch, markings overlap.
3. Add all additional markings, such as arrows, entrance lanes, etc., and place markers and signs as shown on the specifications sheets.
4. Make sure that any additional items needed for the specific skill tests are available on the activity day (i.e., bean bag or heavy red cloth, stopwatch, etc.).

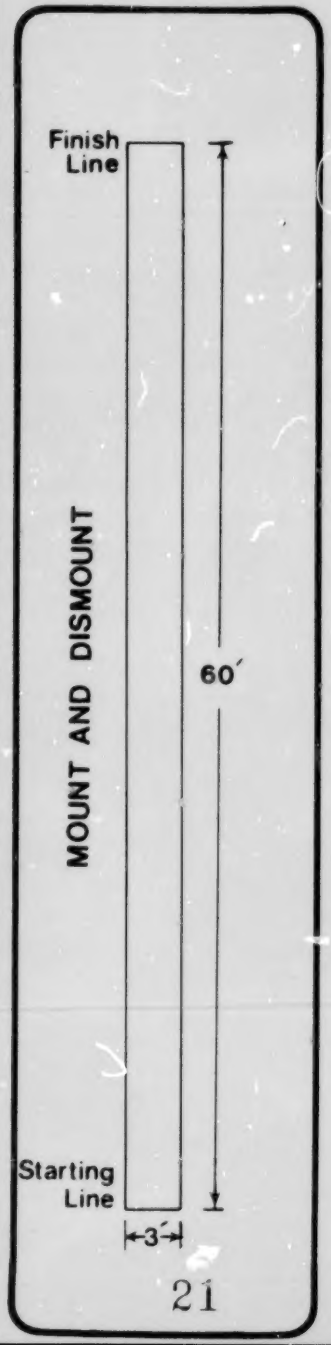
**Instructions for the intersection problem layout follow guideline for the basic course layout.*



Skill Test Course Layout



SPECIFICATIONS FOR EACH SKILL TEST LAYOUT



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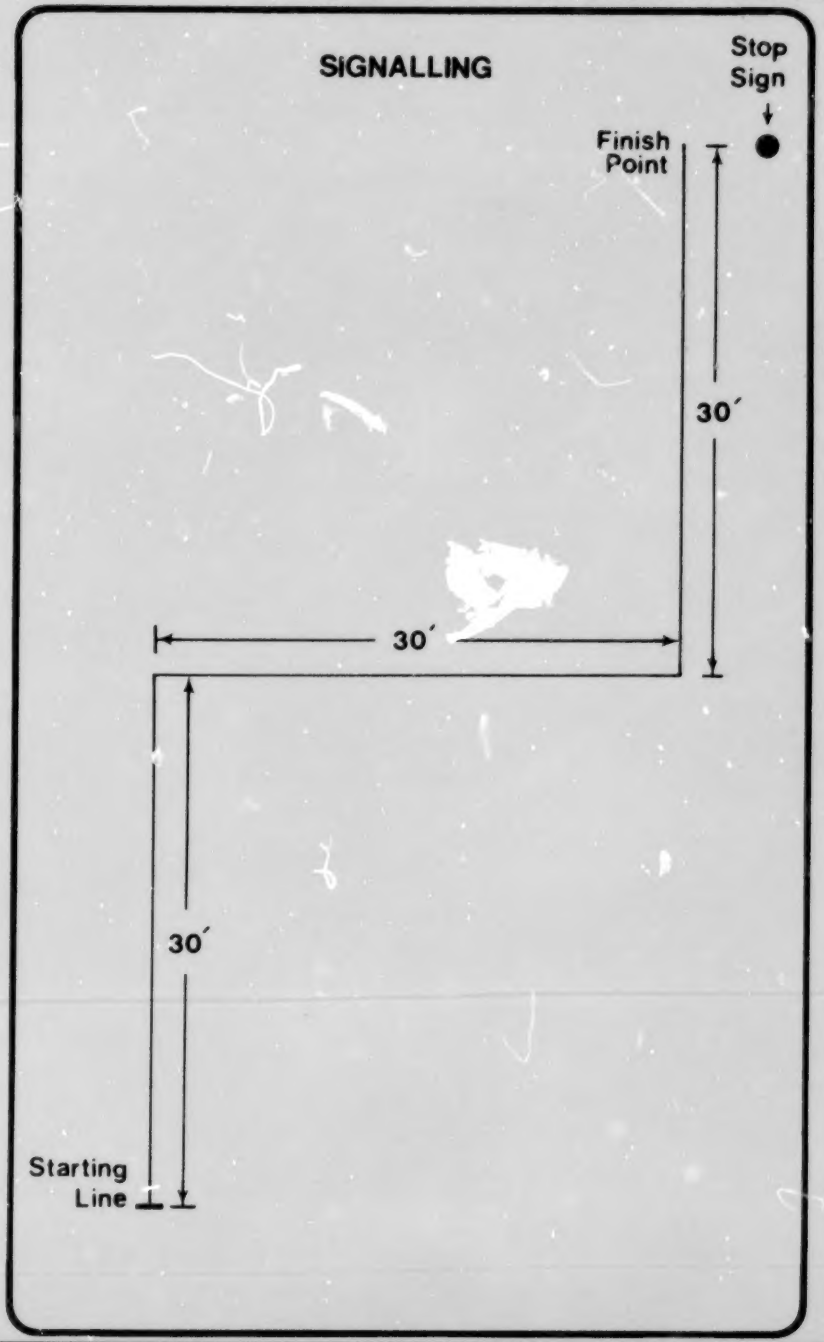

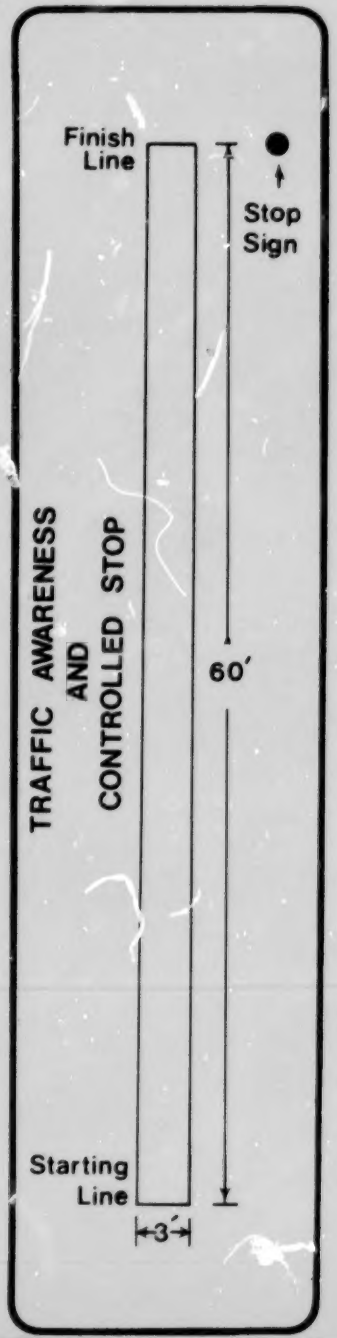

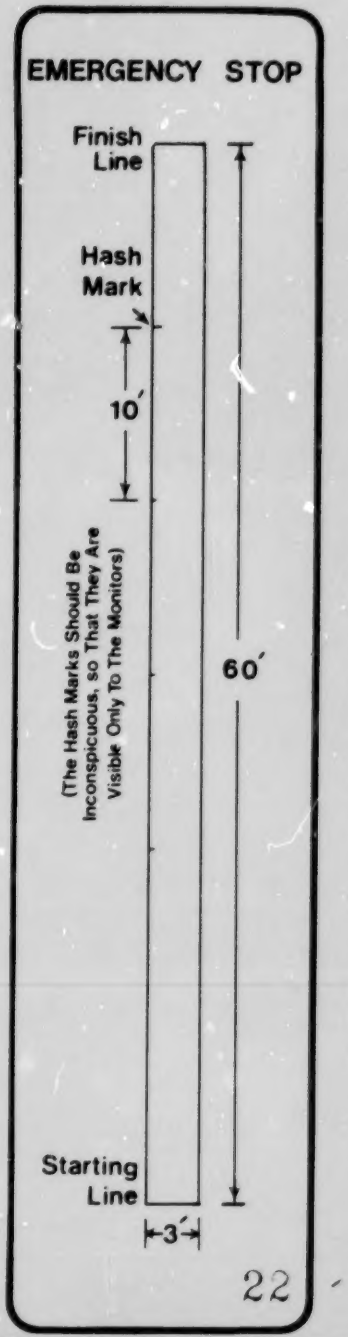

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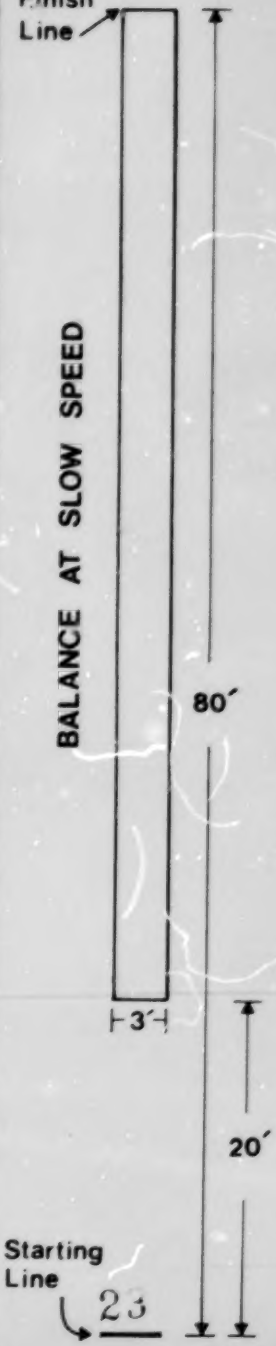
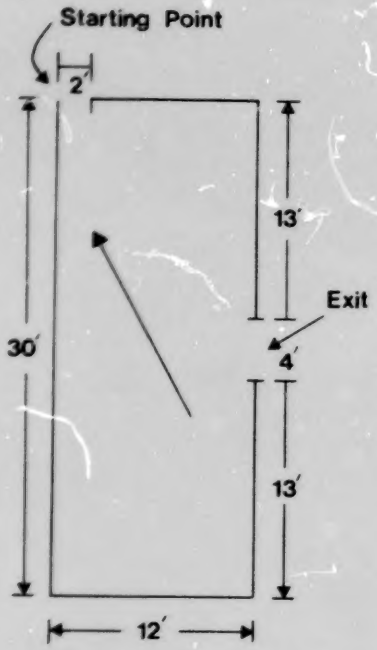
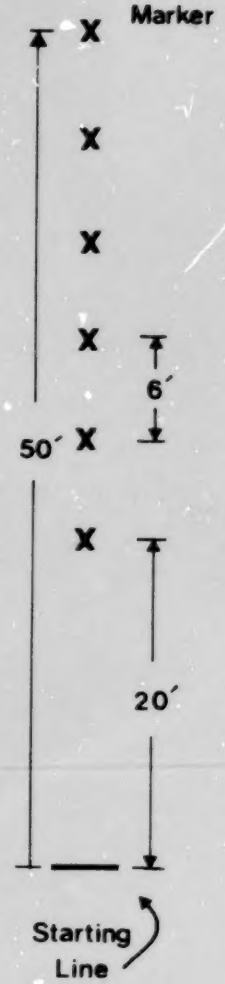
BALANCE AT SLOW SPEED



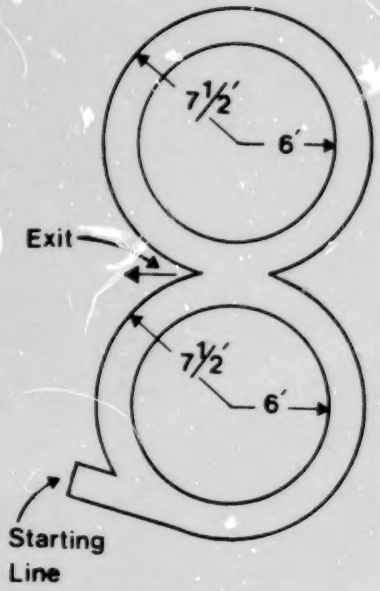
SHORT RADIUS TURN

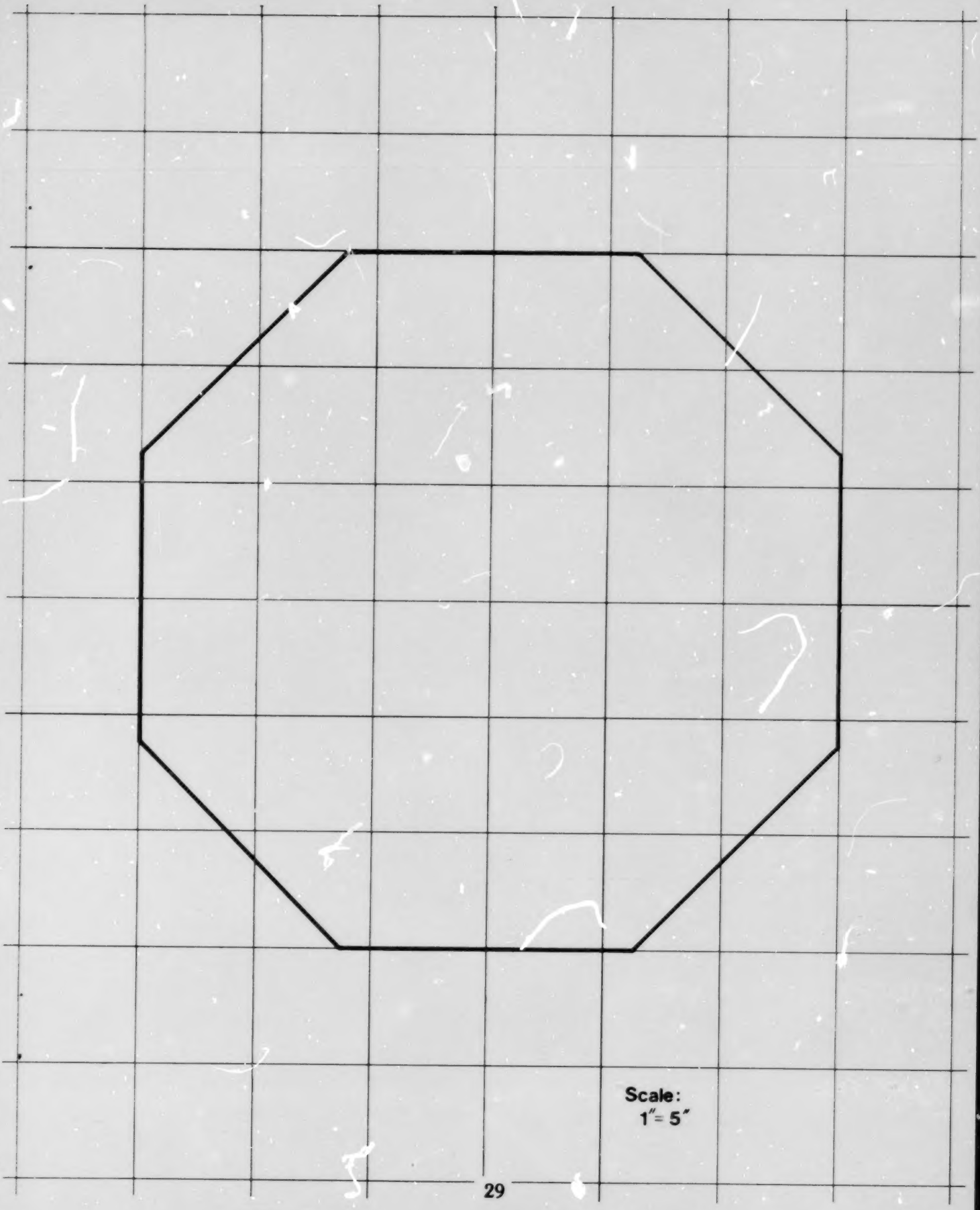


WEAVING TO AVOID OBSTACLES



CIRCLING AND CHANGING DIRECTION





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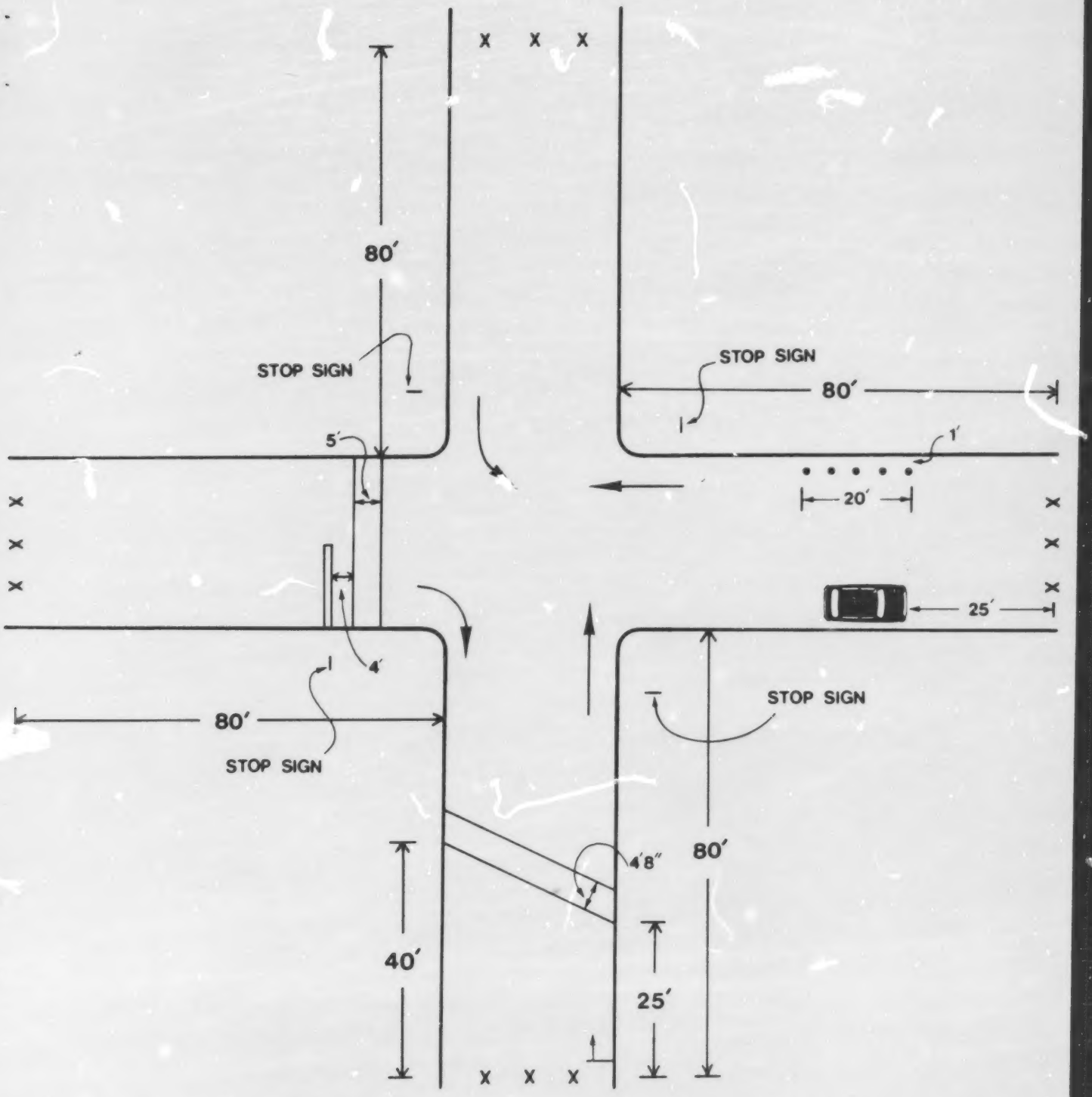
Layout procedures for the intersection problem

Select a four-way intersection that is near to the basic skills test area. Check with the local police to obtain their permission for blocking off traffic from the area and their cooperation in re-routing traffic. If no four-way intersection is located near the test site or if the local police cannot give you permission for closing a public street off from traffic, you will not be able to include the intersection problem as part of the skills test program.

The following list and layout diagram contain all the specifications you will need to set up the intersection problem.

1. Each artery should be blocked off with traffic cones 80 feet from the intersection.
2. The railroad tracks can be simulated simply by painting them on the pavement or by securing thin wood strip "rails" to the pavement.
3. Access to the intersection from all four directions is controlled by stop signs. If the intersection does not have stop signs for all four directions, you'll have to make model signs and install them in the locations that need them. The signs you make should be positioned no closer than 12′ to the intersection.
4. So that the participants will not be confused, paint directional arrows at each entry into the intersection. These arrows should be clearly visible to the bicyclists when they stop at each stop sign.
5. The narrow (1′) lane should be defined by traffic cones. If there is a curb, only the outside edge of the lane needs to be defined by cones.
6. If a crosswalk is not located in the appropriate artery, you'll have to paint one on the pavement. To determine an appropriate location for the crosswalk, imagine that it is the extension of a "sidewalk" that meets the pavement. A common width for crosswalks is 5′.
7. If one is not already marked on the pavement, a stop line needs to be painted 4′ in advance of the crosswalk.

Specifications for the Intersection Problem



Registration for the Activity

Registration for the skills test activity provides (1) a record of the participants, (2) the opportunity to provide the bicyclists with the needed materials (e.g., score sheets and ID tags), and (3) a roster of participants to be used by tabulators when awarding prizes and distributing handouts.

It is recommended that registration be according to age groups. Suggested groups are:

Mites	6-8 year olds
Midgets	9-11 year olds
Juniors	12-13 year olds
Intermediates	14-15 year olds
Senior	16 years old & older

If, however, the skills test is for a specific target group which does not have a wide age range, such grouping is not necessary.

A guide for planning and implementing registration for the skills test is provided.

In-advance of the activity

1. Determine the number of people needed to register the bicyclists. Ideally, one person should handle each age group, but if under 50 participants are expected, one person could handle more than one grouping. If there are no groupings, two people for each 50 participants would be a good rule of thumb.
2. Determine and prepare appropriate quantities of registration rosters, ID tags, and score sheets (duplicate, print, etc.).
3. Prepare appropriate signs which identify the registration area and age groups.
4. Determine equipment and other supply needs—tables, chairs, pens (don't use pencils), magic markers.

Activity day

1. Register participants by adding their names to the registration roster (see sample registration rosters).

   Sample 1 — no age groups

   Sample 2a - 2e - — by age groups

   Note: If participants will not be scored, ignore the total score column.

   IF there, are less than 50 participants, ID numbes are not necessary; therefore, ignore the ID number column. If there are over 50 participants assign each bicyclist a consecutive number for easy identification. The number should also identify the age group the bicyclist is registered under. Examples follow:

Mites	Midgets	Juniors	Intermediates	Seniors
Mit-1	Midg-1	J-1	I-1	S-1
Mit-2	Midg-2	J-2	I-2	S-2
Mit-3	Midg-3	J-3	I-3	S-3

2. Write the ID number of each bicyclist on the registration roster.
3. If ID numbers are used, an ID tag bearing the ID number on the registration form should be made out for each bicyclist. Using a magic-marker, apply the ID number to

the tag in large bold letters. Color coded tags could be used to easily identify age groups.

4. If participants are scored, fill out the individual score sheets, making sure you write in each bicyclist's name, age group, and ID number. (see sample score sheet)
5. Give the score sheet and ID tag to the bicyclist (if applicable) and direct him to the inspection station.
6. Upon completion of registration, rosters should be given to the people handling the exit table.

Inspection and Repair

BEFORE THE SKILLS TEST IS ADMINISTERED, EACH PARTICIPANT'S BICYCLE SHOULD BE PROPERLY INSPECTED FOR POSSIBLE PROBLEMS.

The primary reason for including bicycle inspection as part of a skills test program is to familiarize the participants with basic procedures they can follow to keep their bicycles in good operating condition. Although the inspectors should not allow any participant to ride an unsafe bicycle on the skills test course, they should also be careful to disqualify only those bicycles that are definitely hazardous.

Bicycles should be the correct size for the rider. Data indicate that riders of improperly fitted bicycles are over-represented in motor vehicle/bicycle accidents. If the bicycle is too large, the rider may tire quickly because he cannot easily reach the pedals, and may have difficulty controlling the bicycle because he cannot maintain his balance without swerving. If the bicycle is too small, the rider may also tire quickly and may have difficulty steering if his knees get in the way. With only simple adjustments, many bicycles can be correctly fitted to their riders.

A guide for planning, setting up and implementing a bicycle safety inspection follows:

1. Because properly inspecting and repairing a bicycle requires a considerable amount of technical knowledge and mechanical skill, it is necessary that the inspector be someone who has a sound mechanical background and is familiar with the workings of a bicycle. A mechanic from a local bicycle shop would be a good choice because he would have the expertise for making on-site adjustments.
2. Depending on estimated number of participants, more than one inspector or perhaps one inspector with several assistants may be necessary to help make minor repairs and adjustments.
3. In advance of the scheduled activity, a survey of local bicycle dealerships or area civic clubs may be taken to determine whether any would be interested in receiving copies of the inspection forms after the event (see Option #2 for using the inspection form).
4. Arrange for proper tools and equipment to be present at the inspection station along with an appropriate quantity of inspection forms, clipboards, pencils, pens, signs, etc.
5. In advance of the activity, all inspectors should familiarize themselves with the inspection form and instructions and select from the following options, the way it is to be used.
   1) Make enough photocopies so that each participant receives an inspection form. Have the participants keep the inspection check lists and urge them to make whatever further repairs or changes that are necessary on their own after the activity. Emphasize the dangers of riding a bicycle that has mechanical defects.
   2) While planning for the skills test, survey local bicycle dealerships or area civic clubs to determine whether any would like to have the inspection forms after the activity. The dealers or civic clubs can then contact the owners of the bicycles that need repairs that could not be made at the skills test site. In the case of the bicycle dealers, this potential source of business could be the incentive to get a professional bicycle mechanic to be an inspector for the skills test. The civic clubs as part of their community service programs, could contact parents, urging them to have needed repairs made to insure their children's safety.
   3) The inspector examines the participants' bicycles using one inspection form as a checklist. This method produces no written inspection records. The inspector or his assistants will have to explain carefully to each participant which features need repairing or correcting and why.

Actual inspection

The inspector should explain to the participating cyclists the reasons for maintaining a bicycle in good mechanical condition and having a properly fitting bicycle. A real-world example should be given to support the reasons. (e.g.: If your coaster brakes aren't working, you won't be able to stop your bicycle; if you have hand brakes, both front and rear-wheel brakes need to work effectively—rear wheel brakes alone are not sufficient to stop a bicycle quickly in emergency situations; front-wheel brakes alone can make the rider lose control of the bicycle.)

The bicyclist, with the help of the inspector,

should diagnose the problems with his bicycle. The inspector should explain to the bicyclist what is specifically wrong with the bicycle. If the inspector is working with a small group, this can be done on an individual basis. If working with a large group, the head inspector should select one bicycle and go over it point by point as a demonstration while the assistants, taking their cue from the inspector, help smaller groups inspect their bicycles.

Minor repairs and adjustments should be made on-site. **IF THE REPAIRS NEEDED TO MAKE A BICYCLE SAFE TO RIDE CANNOT BE DONE AT THE SITE, IT SHOULD NOT BE ALLOWED TO BE RIDDEN IN THE SKILLS TEST.**

The inspector should examine the participants' bicycles using the inspection form as a checklist. The inspector should check off on the list each feature that is acceptable and describe in the "Remarks" section what is wrong with any features needing repairs that cannot be made on-site. Depending on what option is selected for use of the form, the inspection is completed. Make sure each bicyclist's name, address and phone number are filled in at the top of the form.

The inspector should check off on the participant's score sheet whether or not the bicycle has passed inspection and then direct the bicyclist to the next phase of the activity.

INSPECTION FORM

Bicyclist's Name_____

Address_____

Phone #_____

Size and Fit	
Saddle	
Frame	
Front Fork	
Pedals	
Handle Bars	
Front Wheel	
Spokes	
Rim	
Tire	
Tread	
Inflation	
Alignment in Fork	
Rear Wheel	
Spokes	
Rim	
Tire	
Tread	
Inflation	
Alignment in Fork	
Derailleur	
Chain	
Tension	
Condition	
Hand Brakes	
Cable	
Brake Shoes	
Coaster Brakes	
Reflectors	
Front	
Rear	
Wheels	
Lights	
Warning Device	

Remarks: _____

_____

_____

_____

Inspector's Name:_____

INSPECTION LIST

This list and the inspection form were derived from the Bicycle Manufacturers Association of America Model Inspection Form. HSRC modified that form according to recommendations it received from bicycle dealers and mechanics and the North Carolina Bicycle Program.

1. **Size and Fit:** The rider should be able to straddle the frame with both feet flat on the ground. When the rider is seated on the saddle with his heel on the pedal, his leg should be fully extended when the pedal is at its lowest point. (To insure that it won't break off, at least two inches of the seat post should remain within the frame.)
2. **Saddle:** The saddle should be in good condition and tightly secured in a horizontal position.
3. **Frame:** The frame tubing should be straight, and free of dents and kinks.
4. **Front Fork:** Check to make sure it is not bent backward or sideways
5. **Pedals:** Make sure that they are securely fastened and that the tread is intact.
6. **Handle Bars:** Check to make sure they are symmetrical, in line with the front wheel, and tightened against any horizontal or vertical rotation. The grips should be tight and should not extend above the rider's shoulders.
7. **Front Wheel:**
   - 7A. **Spokes:** Make sure they are all intact and tight.
   - 7B. **Rim:** Make sure it is not dented or twisted.
   - 7C. **Tire (Tread):** Make sure the tire is not bald.
   - 7D. **Tire (Inflation):** With pressure gauge, check tire air pressure to make sure that the tire is inflated according to the specifications stamped on the tire's sidewall. Also, be sure that the tire is properly seated on the rim.
   - 7E. **Alignment in Fork:** Make sure that the wheel is centered securely in the fork and that it can turn freely and evenly.
8. **Rear Wheel:** Repeat the steps for inspecting the front wheel.
9. **Derailleur (for 5 and 10-speed bicycles only):** Be sure that the shifting mechanism accurately transfers the chain from one sprocket to another.
10. **Chain (Tension and Condition):** At its middle, the chain should have 1/2" of play; the chain should be free of dirt, grit, and should be well lubricated.
11. **Hand Brakes**
    - 11A. **Cable:** Make sure that there are no breaks in the cable and that it effectively engages the brake shoes against the rim. Make sure that both the front and rear brakes operate smoothly.
    - 11B. **Brake Shoes:** Make sure that each pad is at least 3/16th" thick, that the nuts securing them are tight, and that they meet the rim squarely.
12. **Coaster Brakes:** Make sure that there is an adequate back pedalling range of motion (about 20°), and that the coaster brake works effectively.
13. **Reflectors:** Bicycles should have a reflector that is visible from the front and another one that is visible from the rear. Newer models should also have on each wheel reflectors that are visible from the side.
14. **Lights:** For nighttime riding, there should be a headlight in good working order.
15. **Warning device:** There should be a mechanical or electrical warning device that emits a clearly audible sound.

Bicycle Registration and/or Licensing

Many communities have mandatory or voluntary bicycle registration and/or licensing. Arrangements can be made with the local police department (or whatever agency is responsible for such a program) to set up a station at the skills test site so that participants could easily go through the appropriate procedures to register and license their bicycles.

BICYCLE SKILLS TEST

REGISTRATION ROSTER

Name	Total Score

BICYCLE SKILLS TEST

REGISTRATION ROSTER

Mites

6-8 years old

Name	ID Number Mit-	Total Score

BICYCLE SKILLS TEST

REGISTRATION ROSTER

Midgets

9-11 years old

Name	ID Number Midg-	Total Score

BICYCLE SKILLS TEST

REGISTRATION ROSTER

Juniors

12-13 years old

Name	ID Number J-	Total Score

BICYCLE SKILLS TEST

REGISTRATION ROSTER

Intermediates

14-15 years old

Name	ID Number I-	Total Score

BICYCLE SKILLS TEST

REGISTRATION ROSTER

Seniors

16 years old and older

Name	ID Number S-	Total Score

BICYCLE SKILLS TEST

SCORE SHEET

NAME _____

AGE GROUP

- ☐ Mites
- ☐ Midgets
- ☐ Juniors
- ☐ Intermediates
- ☐ Seniors

_____
ID Number

PASSED BICYCLE INSPECTION ☐ Yes ☐ No

PASSED WRITTEN TEST ☐ Yes ☐ No

SKILL TEST	SCORE	SCORER'S INTITALS
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
Intersection Problem	_____	_____
TOTAL SCORE	_____	_____

(Tabulator's Initials)

Administration of the Written or Oral Test

A written test may be administered, if desired. The feasibility and method of administering such a test should be determined. An example of a written test is provided on the following page with the answers provided below.

One possible way to administer the test would be in advance of the actual skill test activity. With the cooperation of area schools, students could be given the test in the classroom. Groups such as the 4-H Club, Boy Scouts, Girl Scouts, bicycle clubs, etc. could administer the test at a meeting prior to the skill test activity. Another option would be to print the test in the local newspaper (this would reach the adult bicyclist as well as the young bicyclist). Completed tests could be brought to the activity and graded.

Depending upon the facilities used, weather conditions, etc., a station could be set up at the activity and the test administered either verbally or in written form.

The example written test has been included by permission of the Bicycle Manufacturers Association of America, which developed it.

Answers to test questions:

1. T	6. T	11. F	16. F	21. T
2. T	7. T	12. F	17. T	22. F
3. F	8. F	13. T	18. T	23. F
4. F	9. F	14. T	19. T	24. T
5. T	10. F	15. F	20. F	25. F

Test Questions

	TRUE	FALSE
1. A bicycle is considered a vehicle and should be ridden on the right-hand side of the street or highway.	☐	☐
2. Bicycle riders should observe and obey all traffic signs, stop and go signals, and other traffic control devices.	☐	☐
3. Bicycle riders should try to crowd ahead between cars at a signalized intersection so as to be in front when the light changes.	☐	☐
4. Pedestrians do not have the right-of-way on sidewalks or crosswalks.	☐	☐
5. Bicycles should be "walked" across heavily-traveled streets.	☐	☐
6. Night riding without a front white light or a red rear reflector is unsafe.	☐	☐
7. Bicycle riders hitching to a moving vehicle may be struck by other vehicles.	☐	☐
8. A bicycle in poor condition is safe if the rider is skilled.	☐	☐
9. It is safe and proper for a bicycle rider to carry a passenger.	☐	☐
10. It is safe to ride bicycles three abreast when riding in a group.	☐	☐
11. Hitch-hiking or holding on to moving vehicles is safe if the rider it watchful.	☐	☐
12. Bicycle riders should carry bundles in one hand if the bundles must be carried upon a bicycle.	☐	☐
13. The headlight of a bicycle should be seen from a distance of 500 feet.	☐	☐
14. Riding in single file is the sensible thing to do.	☐	☐
15. The proper way to make a left turn is to cut the corner.	☐	☐
16. It is a safe practice to enter the street from the sidewalk without first observing whether a car is coming.	☐	☐
17. When passing a slow-moving car ahead, going in the same direction, you should pass to the left of the car in front.	☐	☐
18. Bicyclists should keep to the right while riding in the street.	☐	☐
19. Bicycle riders should give hand signals before making a turn.	☐	☐
20. The roadway is a safe place to park a bicycle.	☐	☐
21. Icy or slippery streets are dangerous places to ride a bicycle.	☐	☐
22. A bicycle rider should look only straight ahead when crossing an intersection.	☐	☐
23. It is safe for two people to sit on a bicycle if one sits on the handlebars.	☐	☐
24. Valuable clues to pending changes in traffic can be found by listening to the sounds of traffic.	☐	☐
25. On a country highway cyclists should keep to the left side of the road the same as pedestrians.	☐	☐

Administration of the Skills Test*

**The maneuvers for this skill test are based on elements from a variety of existing skill tests, primarily from maneuvers in the Bicycle Safety Tests and Proficiency Course booklet published by the Bicycle Manufacturers Association of America and the Cycle Safely for Pep Skill Test Layout and Rodeo Guide published as a community service of the Travelers Insurance Companies.*

HSRC modified and added to the original skill tests according to its own field experience, interviews with people who have had extensive experience conducting bicycle rodeos, skilled bicyclists, and the North Carolina Bicycle Program.

In-advance of the activity

1. **Determine manpower needs**

   The number of monitors to be used in the administration of the skills test must be determined in advance. There are two basic factors which will influence the total number of persons used:

   1. The anticipated number of participants
   2. The number of available volunteers

   Ideally, two monitors should be used for skill tests 1-8; one to provide the bicyclists with instructions and explanations and another to evaluate the bicyclists' performance and score. If a skilled cyclist is selected to demonstrate the test, he could possibly also serve as a monitor. Otherwise, one of the monitors can also act as demonstrator.

   Five monitors are needed for the intersection problem. A skilled cyclist should demonstrate the test, but not serve additionally, as a monitor.

   If more than fifty participants are expected, more monitors can be assigned primarily to keep the activity under control, provide additional safety precautions, and assure a constant flow of bicyclists through the course.

2. **Select monitors**

   Monitors must be assigned to each basic skill test and the intersection problem. The selection of monitors is of key importance to the success of the skills test activity in terms of providing maximum benefit to the participants.

   The monitors have the responsibility of watching the bicyclists perform the skill tests and scoring their proficiency, but, what is even more important, they need to also provide the participants a learning experience in bicycle safety. The monitors who are selected should be willing to conscientiously try to achieve this goal.

3. **Select bicycle skill test demonstrator**

   If someone other than a monitor is to demonstrate the skill test, contact should be made with that individual.

4. **Arrange to have a bicycle present for demonstration**

   Arrangements should be made to have a bicycle available on the skills testing day that will fit the demonstrator.

5. **Schedule pre-activity meeting of all monitors**

   It is recommended that the skills test coordinator arrange a meeting of all monitors to:

   1. Assign coverage of the skill tests.
   2. Distribute copies of:
      a. general skills test procedures
      b. administration of skills test information sheet
      c. specific skill test instruction sheets
   3. Discuss skill test activity in general—time schedule, location, equipment, etc.
   4. Determine if bicyclists will be allowed to practice each skill test (see no. 7 of the General Skill Test Procedure for all monitors).

5. Give a general pep talk to stimulate monitors to commit themselves towards providing maximum benefit to the participants.

6. **Set up pre-activity practice**

Each monitor should carefully read over the general test procedures and the specific skill test instruction sheet for their assigned skill test to obtain a thorough understanding of the test and their roles. Ideally, each monitor should practice administering the skill test (along with the demonstrator). This can be done just prior to the activity at home or at a nearby parking lot where the skill test can be roughly layed out. Monitors of the intersection problem must familiarize themselves with the basic skill test maneuvers and their scoring.

Activity day

1. Each monitor should bring his copy of the general skill test procedure and the instruction sheet for the skill test to which he has been assigned. Also, each monitor should bring a clipboard and pen **(do not use pencils).**
2. The equipment needs (stopwatch, markers, etc.) are the responsibility of those in charge of the course layout. They will see that these materials are at the skill test site.
3. Each bicyclist should be given individual instruction for each basic skill test, with one bicyclist going through the first maneuver, then through the next maneuver, and so on. If feasible, a group of bicyclists may be instructed at one time for the intersection problem.

GENERAL SKILL TEST PROCEDURE FOR ALL MONITORS

1. **IDENTIFY THE SKILL TEST**
   This is important so that the bicyclists clearly understand what the skill is and how it relates to bicycling.

2. **GIVE THE INSTRUCTIONS FOR THE SKILL TEST**
   Tell the participants how the maneuver is to be done so that they clearly understand how to do it. A sample description is provided for each maneuver. (Ideally, so that the participants can clearly understand the maneuver it should be demonstrated for them while they are hearing the description.)

3. **DEMONSTRATE THE SKILL TEST**
   The demonstration should be made on a bicycle that is properly fitted to the demonstrator. Ideally, the demonstration should be done by a skilled cyclist who has been given instructions and an opportunity to familiarize himself with the maneuver prior to the event.

4. **GIVE A REAL-WORLD APPLICATION FOR THE SKILL**
   This is important because it gives the participants a reason why they need to master the skill. Unless you give such an example, they will probably not understand how the maneuver is related to on-road bicycling. It will be more effective if you use your own words instead of the text to describe the real-world application.

5. **EXPLAIN THE SCORING PROCEDURE*** *(if the event is being conducted as a competition)*
   Make sure that bicyclists clearly understand how the maneuver is scored—what the possible errors are and how many points will be deducted for each one.

6. **ASK THE BICYCLISTS IF THEY HAVE ANY QUESTIONS**

7. **ALLOW THE BICYCLISTS TO PRACTICE THE SKILL TEST**
   This is practical only if there are less than 100 participants.

8. **HAVE THE BICYCLISTS TO PERFORM THE SKILL TEST**

9. **EVALUATE THE BICYCLISTS' PERFORMANCE**
   Young bicyclists should be congratulated and praised if they have done well. If they have not, they should be encouraged. All bicyclists who do not do well should be given helpful hints.

10. **DIRECT THE BICYCLISTS TO THE NEXT STATION**
    After each bicyclist completes the test, mark the score sheet (if the tests are being scored), return the sheet to the bicyclist, and direct him to the next station.

**Because the primary purpose of the skills test is to provide bicyclists with a learning experience, we did not go through the elaborate procedures necessary to formally validate the test scoring practices (i.e., high scores do not necessarily indicate a high degree of proficiency in bicycling skills, and low scores do not indicate a low degree of proficiency). Factors that can affect the range of scores are the size and style of the bicycle, the bicyclist's age, and the difference among the scoring standards of the monitors. The scoring mechanism was provided only as a means for establishing a winner when the bicycle skill test is used as competition.*

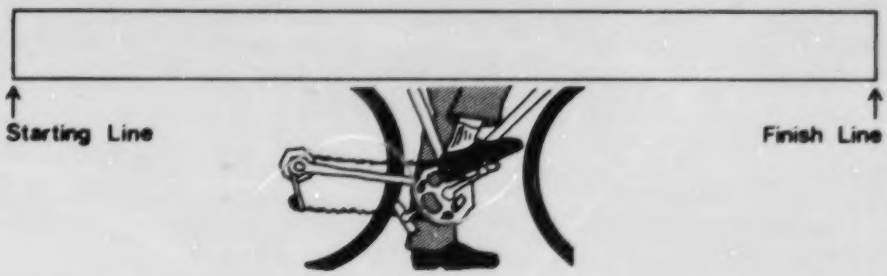
SKILL TEST #1

SKILL TESTS

MOUNT AND DISMOUNT

Tests bicyclist's ability to use proper techniques to start and stop without wavering.

LAYOUT



INSTRUCTIONS FOR SKILL TEST

"Position your bicycle so that the front tire touches the starting line and straddle your bicycle. Have one foot on the ground and the other placed on the pedal, which is 3/4 of the way up. Place your hands on the handle grips. Simultaneously push off with the foot on the ground and press down on the pedal with the other foot. Then raise your body up and back onto the saddle. Ride down the lane until you're near the end, then apply your brakes. Keep the foot that bears your body weight on the pedal, take your other foot off its pedal, and extend it forward. Just as the bicycle stops, pull your body forward off the saddle and place the foot you have extended on the ground."

REAL WORLD APPLICATION

In order to avoid possible collisions with cars, bicyclists need to be able to start moving without swerving. If you try to start up while you're seated or without your pedal in the correct position, you can wobble out in front of a car. Starting up this way does not create enough momentum to push you forward in a straight line. To avoid possible collisions with cars, bicyclists must also be able to stop without tipping over. You can do this only if you are not seated and place the foot you have extended forward down when you stop.

SCORING

Maximum of 10 points

2 points deducted for:

- not placing pedal in correct position before getting underway
- not raising body back into saddle after pushing off
- going outside the lines
- not putting body weight on down pedal and extending other foot forward
- not pulling body forward off the saddle when stopping*

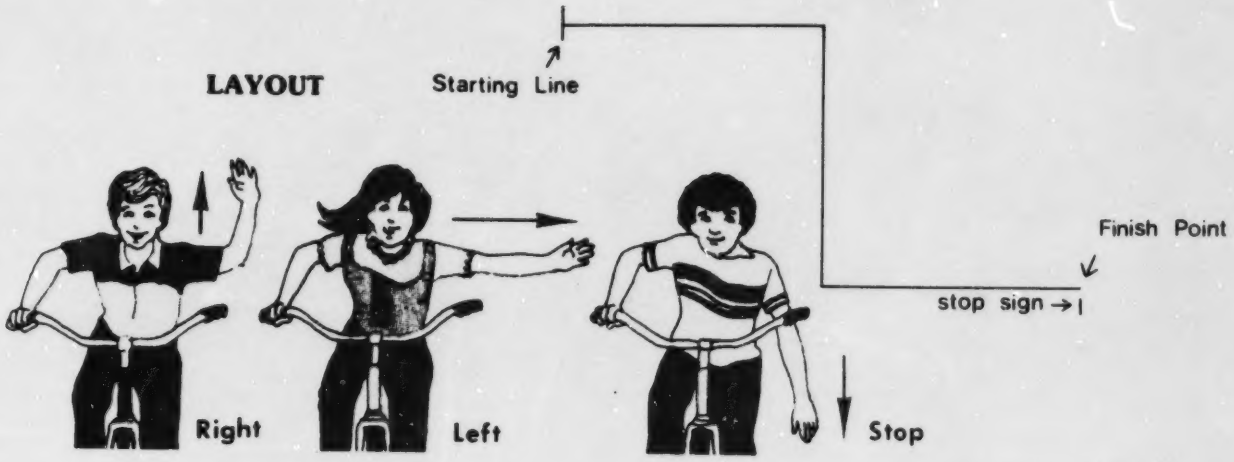
**Bicyclists who ride high-rise bikes with banana seats or who are too large for their bikes may be able to stand with their feet flat on the ground even when seated. (In either of these instances - do not deduct points.)*

SKILL TEST #2

SKILL **SIGNALLING**

TESTS Tests bicyclist's knowledge of and ability to give proper hand signals.

LAYOUT



INSTRUCTIONS FOR SKILL TEST

"Begin at start line and proceed along the marked strip. When approaching the right-hand turn, use the proper hand signal to indicate that you will be turning right and make the turn. Do not continue to signal through the turn ;— put both hands on handlebars while turning. When approaching the left-hand turn, use the proper hand signal and make the turn. As you approach the stop sign give the proper hand signal to indicate that you will be stopping, and stop just in front of the stop sign. You do not have to keep your tires on the marked strip, only use it as a guide."

REAL WORLD APPLICATION

Many accidents or near misses involving a bicycle and a motor vehicle are due to the failure of bicyclists to clearly communicate their intentions to other drivers. Knowing and safely using proper hand signals when making turns and stopping will avoid many needless collisions.

SCORING

Maximum of 10 points

3 points deducted for:

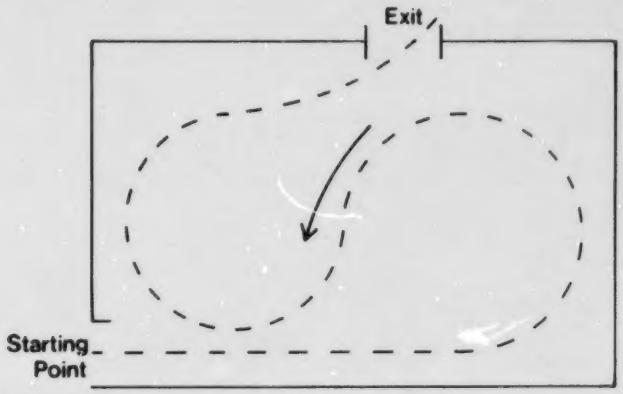
- failing to give right turn signal
- failing to give left turn signal
- failing to give stopping signal

SKILL TEST #3

SKILL **SHORT RADIUS TURN**

TESTS Tests bicyclist's ability to turn around easily and safely within a limited area.

LAYOUT



INSTRUCTIONS FOR SKILL TEST "Mount your bicycle. Begin at the entrance and ride along the right side of the lane. At the far end, turn to the left, make a U-turn, and steer for the starting point. When you get back to the end where you started, make another U-turn, this one to the right, and exit between the lines."

REAL WORLD APPLICATION Often bicyclists must turn around in a very narrow street or constricted area. In order to successfully complete the turn, you need to develop a sense of balance to avoid wobbling, losing control, and perhaps falling off your bicycles.

SCORING Maximum of 10 points (do not award less than zero)

2 points deducted **EACH TIME:**

- tire goes over the line
- foot touches ground

2 points deducted for:

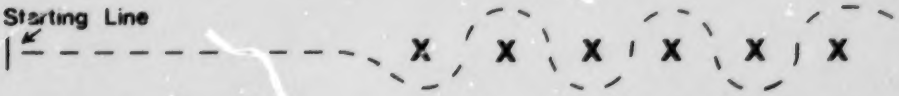
- hard or erratic braking

SKILL TEST #4

SKILL **WEAVING TO AVOID OBSTACLES**

TESTS Tests bicyclist's ability to steer and balance while changing directions quickly.

LAYOUT



INSTRUCTIONS FOR SKILL TEST "Begin at the start line, and riding as fast as you can **with control**, go to the right of the first marker, to the left of the second marker, and so on, weaving back and forth between the markers until you have passed all of them. You have finished when you pass the last marker and stop."

REAL WORLD APPLICATION Many times bicyclists are confronted with an unexpected obstacle such as a rock, a pothole or even a pedestrian that they must try to avoid. This skill test will show you how much ability you have developed in being able to safely maneuver around such obstacles.

SCORING Maximum of 10 points (do not award less than zero)
2 points deducted **EACH TIME:**

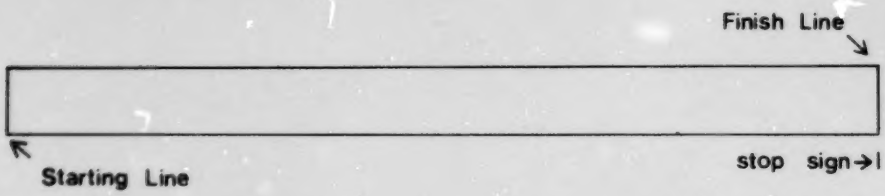
- marker is touched
- wrong turn made around a marker
- foot touches ground

SKILL TEST #5

SKILL — **TRAFFIC AWARENESS AND CONTROLLED STOP**

TESTS — Tests bicyclist's ability to properly survey traffic for potential obstacles and to make a safe controlled stop.

LAYOUT



INSTRUCTIONS FOR SKILL TEST — "Straddle your bicycle at the starting line, and look over your left shoulder for "traffic."* Then, glance to the left and to the right and get underway. Proceed along the marked lane and stop smoothly and safely before you reach the stop sign."

**When young children take this test, the monitor should stand behind bicyclists and have them look back at him.*

REAL WORLD APPLICATION — Because drivers often do not see bicycles, it is extremely important for bicyclists to be especially careful in looking out for cars. Each time you start up into a stream of traffic, look to the rear for approaching cars and glance to the left and right for pedestrians or parked cars that may obstruct your path.

SCORING — Maximum of 10 points
2 points deducted for:

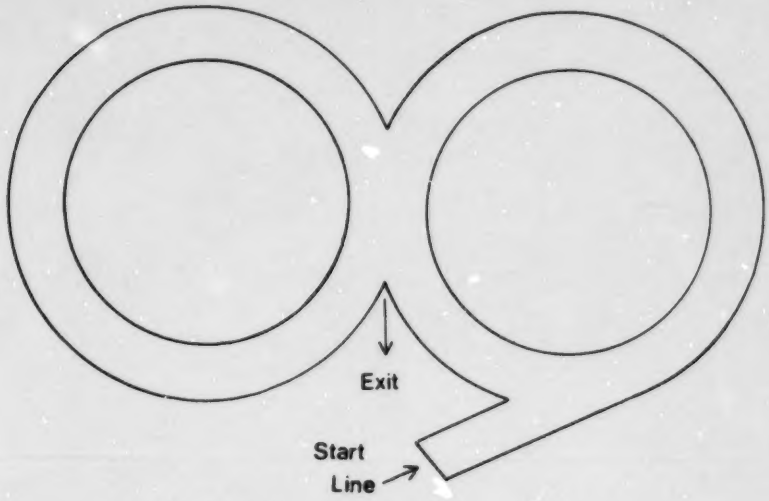
- failing to look to the rear at the starting line
- failing to glance to the left just prior to getting underway
- failing to glance to the right just prior to getting underway
- stopping past the stop sign
- skidding while stopping

SKILL TEST #6

SKILL **CIRCLING AND CHANGE IN DIRECTION**

TESTS Tests bicyclist's ability to shift weight and keep balance when making intended changes in direction, and to maintain an appropriate speed.

LAYOUT



INSTRUCTIONS FOR SKILL TEST "Begin at the start line, ride half-way around the first circle, then changing direction enter the second circle and ride around the second circle until you come to the first circle. Reenter the first circle and ride around it to complete a figure 8. Continue on and repeat the figure 8 motion one more time and exit at the meeting point of the circles as indicated by the arrow."

REAL WORLD APPLICATION Many times bicyclists must change direction, sometimes with very little warning, to dodge a pedestrian, a series of potholes, or an oncoming vehicle. Bicyclists must have the ability to control their bicycles in these instances to avoid a fall or a collision.

SCORING Maximum of 10 points (do not award less than zero)
2 points deducted **EACH TIME:**

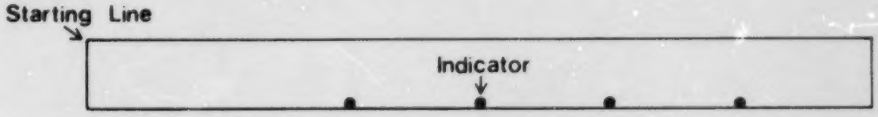
- front wheel goes over the line
- foot touches ground

SKILL TEST #7

SKILL — **EMERGENCY STOP**

TESTS — Tests bicyclist's ability to react quickly, to keep his weight from shifting forward in sudden stops, and to judge his bicycle's stopping capability in an emergency situation.

LAYOUT*



*The indicators on the edge of the lane at 10-feet intervals are for determining when to throw down the marker: when the bicyclist reaches one indicator, throw the marker down at the next indicator. Throw the marker down at different indicators so that the participants will not be able to anticipate when to stop.

INSTRUCTIONS FOR SKILL TEST — "Begin at the starting line and ride down the lane at a medium speed. I will walk along the side of the lane a short distance in front of you. At some point I will throw a marker down onto the lane. When I do this, quickly stop so that you do not hit the marker and do not skid."

REAL WORLD APPLICATION — It is very important to know how to stop quickly but with control. This skill is necessary to avoid colliding with a vehicle, a pedestrian, an animal, or any other obstacle that may suddenly come into your path. Sudden stops cause your weight to shift from the rear to the front of your bicycle, which can either cause the bicycle to skid and go out of control or pitch you over the handlebars. You must shift your weight to the rear to keep this from happening.

SCORING — Maximum of 10 points (do not award less than zero)

5 points deducted for:
- skidding

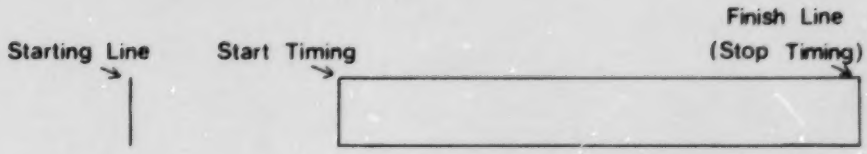
10 points deducted for:
- hitting the marker

SKILL TEST #8

SKILL **BALANCE AT SLOW SPEED**

TESTS Test bicyclist's ability to balance at slow speed.

LAYOUT



INSTRUCTIONS FOR SKILL TEST

"Begin at the starting line and ride slowly towards the lane. I will time you from when your front hub enters the lane until it crosses the finish line. Your goal is to go slowly enough to take at least 30 seconds to go through the lane. I will tell you how much time has passed every five seconds so that you know how long you are taking."

REAL WORLD APPLICATION

Many times bicyclists must ride at slow speeds at the edge of the roadway. You must be able to maintain your balance at slow speeds under these conditions to avoid swerving into the path of a car or dropping off the edge of the roadway onto the dirt or gravel of the shoulder, which can cause loss of control.

SCORING

Maximum of 10 points (do not award less than zero)

2 points deducted **EACH TIME:**

- foot touches the ground
- front tire goes over the line

1 point deducted for each second less than 30 seconds (e.g., if a bicyclist takes 25 seconds, he loses 5 points)

INTERSECTION PROBLEM

TESTS Tests bicyclist's ability to recognize various traffic conditions and to use basic bicycling skills in a simulated real-world traffic situation.

REAL WORLD APPLICATION Because hazards can occur at any time while you're riding, you must always be ready to react to sudden dangerous situations by taking appropriate measures to insure your safety.

In-advance of the activity

1. Monitors should familiarize themselves with the maneuvers and scoring of skill tests 1-8.
2. The following lists the diagrams which illustrate aspects of the Intersection Problem:

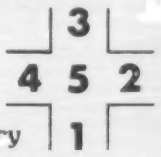
   Diagram A - Intersection Configuration
   Diagram B - Guide to the Maneuvers
   Diagram C - Guide to Scoring
   Diagram D - How to Properly Cross Railroad Tracks
   Diagram E - How to Make a Car Door Emergency Avoidance Maneuver

   (See diagrams)

   Using Diagram A as a guide, create on a large piece of poster board, an enlarged illustration of the intersection. Also enlarge Diagrams D and E. Use the posters as an aid when explaining maneuvers to the bicyclists.
3. Make sure you have enough copies of the intersection problem scoring sheets to accommodate the anticipated number of participants.

Activity day

1. Follow the same procedures outlined in the General Skill Test Procedure For All Monitors Guide in administering the test.
2. Monitor responsibilities:
   One monitor should stand in the middle of each of the intersecting roadways and a fifth monitor should be positioned in the middle of the intersection.



   Monitor 1 - instructs bicyclists

   Monitor 2 - opens car door (emergency avoidance maneuver)

   Monitor 3 - gives oral command to stop

   Monitor 4 - acts as pedestrian in crosswalk

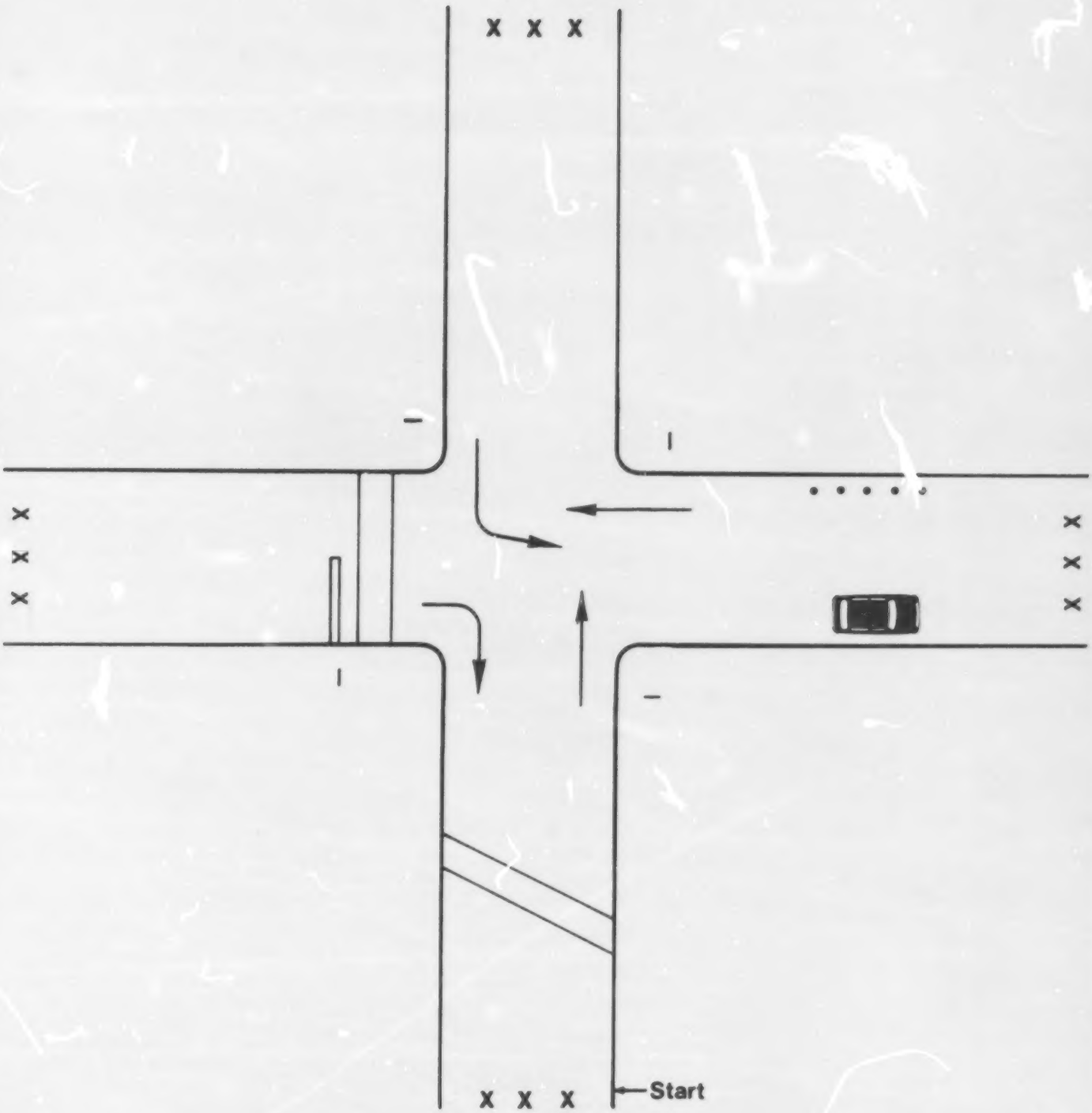
   Monitor 5 - scores bicyclists and transfers total score to bicyclists' score sheets

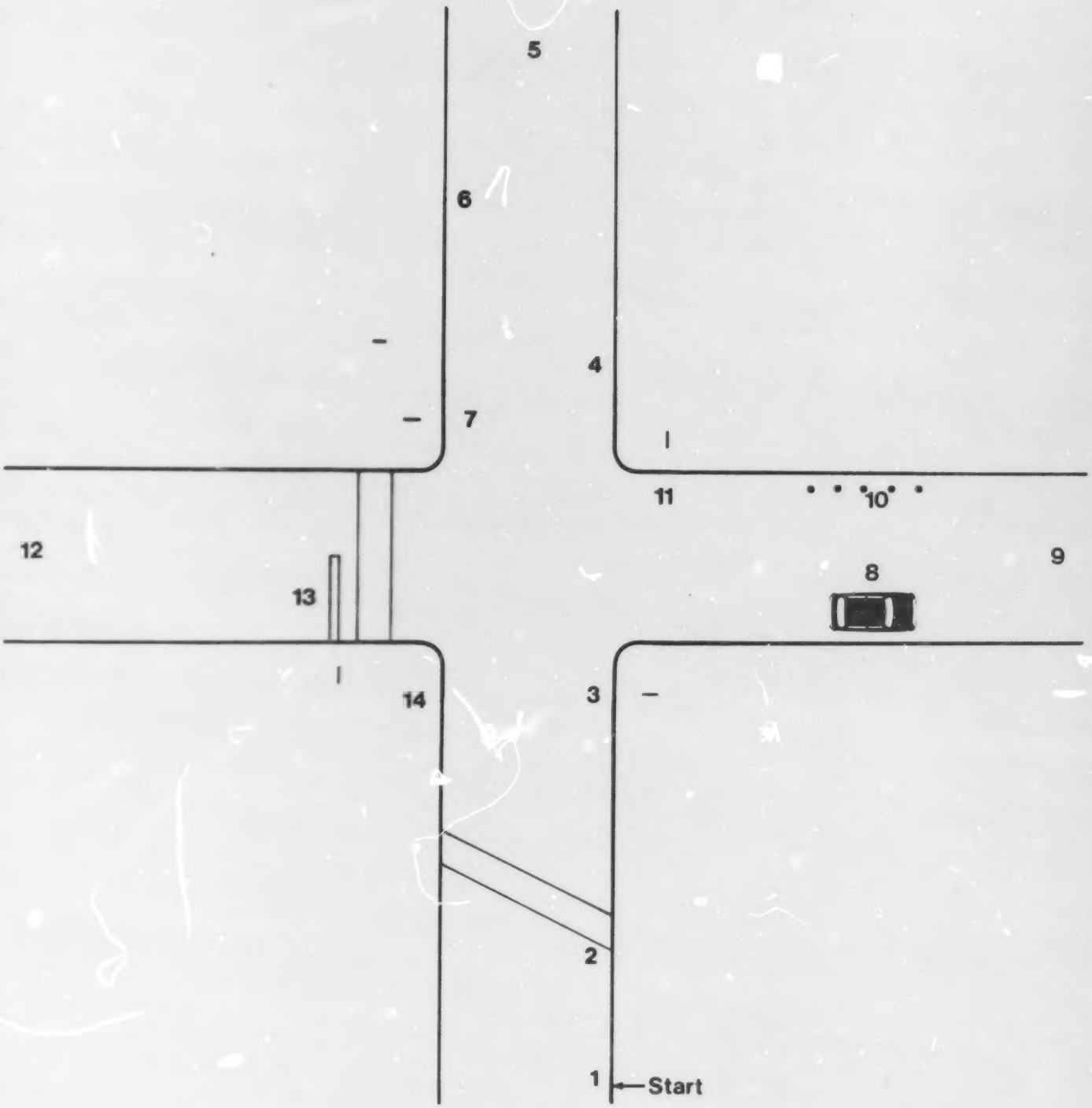
---

Monitor 1 may find it convenient to instruct a group of bicyclists at one time. If feasible, bicyclists should be asked to wait in holding area until an appropriate size group is available.
Monitor 2 should be stationed in the driver's seat of the car. The monitor must take great care not to open the car door too far into the path of the bicyclist. The door should be opened approximately eight inches when the bicyclist reaches the left-rear quarter panel of the car. As soon as the bicyclist passes the car, the monitor should close the door.
Monitor 3 should walk along the side of the roadway and yell "stop" at any point prior to the bicyclist making a short radius turn.

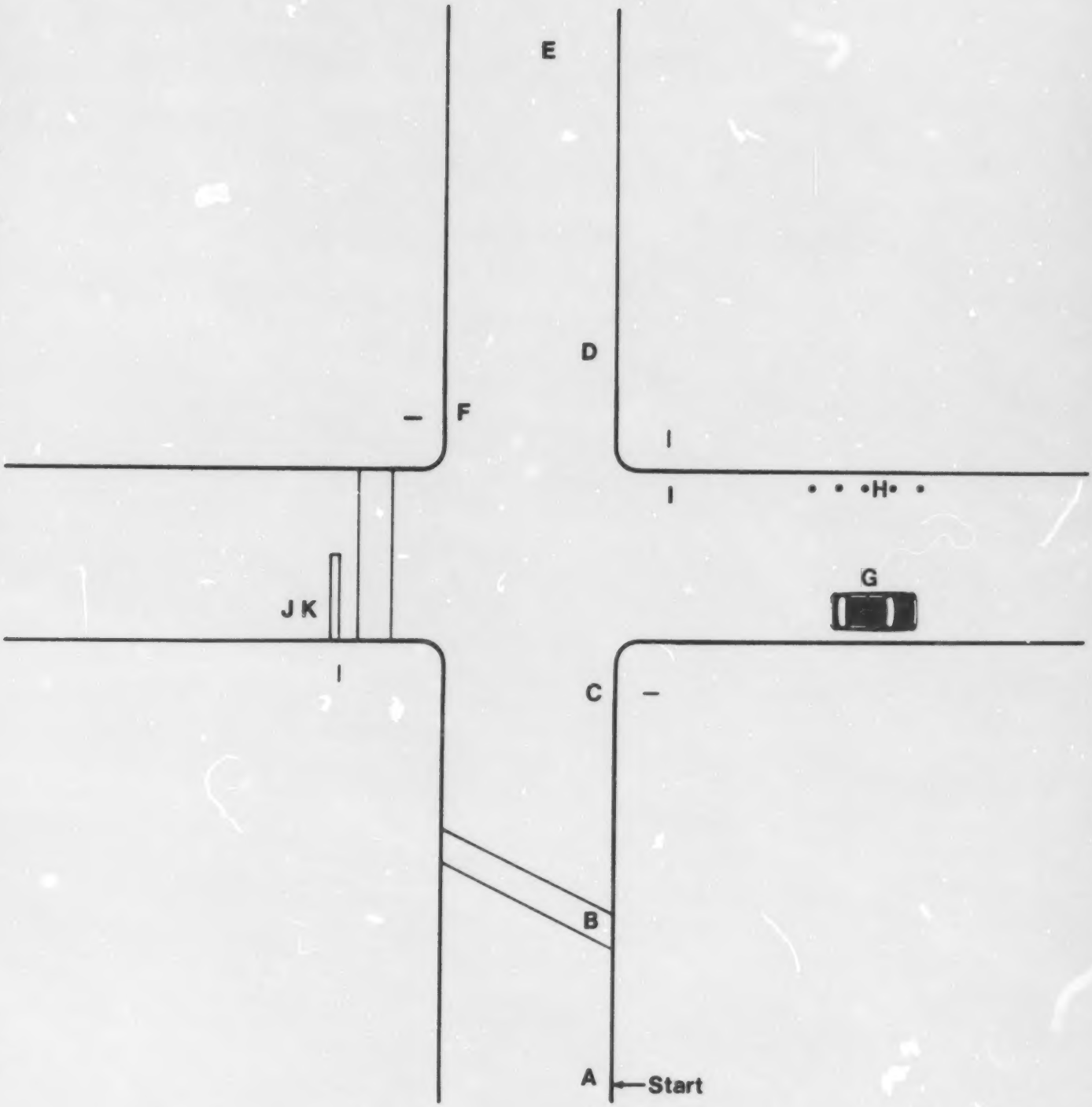
Monitor 4 should start walking across the crosswalk just as the bicyclist stops at the stop line; this makes the bicyclist yield the right of way.

Monitor 5 must use judgment in scoring the bicyclists. In the basic skill tests, points are deducted for very specific errors made by the bicyclists. However, in the intersection problem scoring procedure, one point should be deducted each time the maneuver is not executed *exactly right*. This scoring procedure is meant to stress to the bicyclists that they must *fully* utilize basic skills in order to insure their own safety. Use the intersection problem score sheet located at the end of this section for figuring bicyclists' test scores.

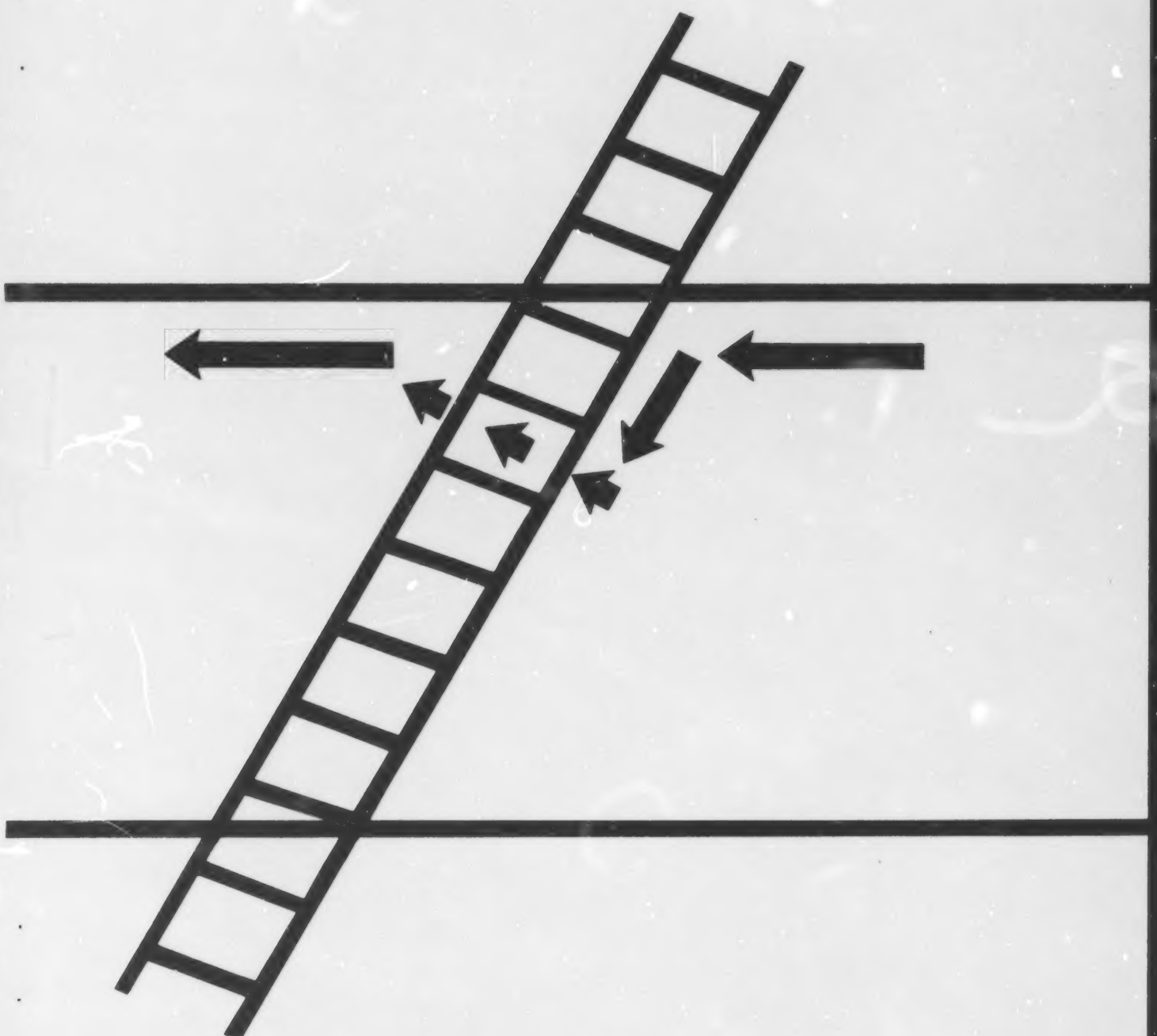

Start



58


E
D
F
H
G
J K
C
B
A
Start

RAILROAD CROSSING



CAR DOOR EMERGENCY AVOIDANCE

1. Check to the rear

2. Yell or Shout

3. Don't swerve out too far to the left

INSTRUCTIONS FOR INTERSECTION PROBLEM

The following list of instructions will orient the bicyclists to the intersection problem and the sequence of maneuvers they will be performing.

1. Straddle your bicycle. Look to the rear, glance to the left and right, and get underway.
2. *Properly cross the simulated railroad tracks.*
3. As you approach the intersection, give the proper signal for stopping and safely stop at the stop sign. After stopping, look to the rear, glance to the left and right, and then cross the intersection.
4. *When you hear the oral command, make an emergency stop.*
5. Make a short radius turn to the left and proceed back toward the intersection.
6. *After checking to the rear, maneuver into the left side of the traffic lane (this will position you near the middle of the roadway;.*
7. As you approach the intersection, give the proper signal for stopping and safely stop at the stop sign. Give the proper left-turn hand signal, look to the rear, glance to the left and right, and then make a proper left turn through the intersection.
8. *Swerve to avoid running into the car door that is suddenly opened.*
9. Make a short radius turn to the left.
10. *Approach the obstacles in the road and ride down the narrow lane between them and the curb.*
11. As you approach the intersection, give the proper signal for stopping and safely stop at the stop sign. Look to the rear, glance to the left and right, and then cross the intersection.
12. *Make a short radius turn to the left.*
13. Use the proper hand signal and come to a complete stop in front of the stopline. You must yield the right of way to the pedestrian walking across the crosswalk. Give the proper right-turn hand signal, look to the rear, glance to the left and right, and then make a right-hand turn.
14. *Exit the course.*

SCORING

INTERSECTION PROBLEM

Check the block if the skill has been properly executed.

(Skill must be executed exactly right or block should not be checked)

A.	Mount and Get Underway	☐
B.	Negotiate Railroad Tracks	☐
C.	Signal and Stop	☐
D.	Emergency Stop	☐
E.	Short Radius Turn	☐
F.	Signal and Make Left Turn	☐
G.	Avoid Car Door	☐
H.	Negotiate Narrow Lane	☐
I.	Traffic Awareness	☐
J.	Stop for Pedestrian	☐
K.	Signal and Make Right Turn	☐

Deduct from the maximum score of 11

- one point for each block not checked

TOTAL SCORE _____

Transfer this total score to the bicyclist's score sheet--then this sheet can be discarded

Distributing Handouts, Tabulating Scores, and Awarding Prizes

The last station of the skills test activity is the exit table. Depending on the scope of the activity, this table can be used to distribute handout material, to tabulate scores, or to award prizes.

In-advance of the activity

1. Determine the number of people needed to tabulate the score sheets and to distribute the handout material and prizes from the estimated number of participants. (In most cases, two people for every 50 participants will be adequate.)
2. Well in advance of the activity day, place orders for quantities of handout material. Use the resource list provided in this manual as a starting point.
3. In addition to bicycle safety literature, other recommended handouts are: strips of reflectorized tape to apply to bicycles for greater night visibility, decals, bicycle pennants, bicycle safety posters, etc. Prizes should be bicycle safety equipment instead of trophies.

   Check with area merchants, civic groups, the police department, bicycle dealerships, and your local AAA to obtain:
   a. Contributions to offset the cost of handout materials and prizes
   b. Merchandise donations for prizes and handouts
   c. Available bicycle safety literature (e.g., police department may have pamphlets on rules of the road)
4. If prizes are to be awarded, determine what they will be. This is based on such factors as the number of participants and the contributions and donations available from the community. Remember that there will have to be prizes for each age group.* Instead of prizes, achievement awards may be presented in the form of certificates. Another option is to give every participant a certificate stating that he has participated in the skills test activity.

**IMPORTANT NOTE: If the prize is a bicycle, give the winners gift certificates from a local bicycle shop so that they can be properly fitted to the new bicycles.*

5. Establish the process for determining a winner of a tie. It is recommended that bicyclists repeat the balance at slow speed skill test to break any ties. The bicyclist achieving the slowest time without putting his foot down or touching the lane marker wins in his category.
6. Assemble the needed quantities of materials, prizes, and equipment. Handout folders for the safety literature, etc. would help considerably in distributing material. You may be able to get a local bank to donate money to have the folders made up. You will also need:

   1 or 2 tables — pens (do not use pencils)
   chairs — calculator(s) - optional
   signs to identify table(s)

Activity day

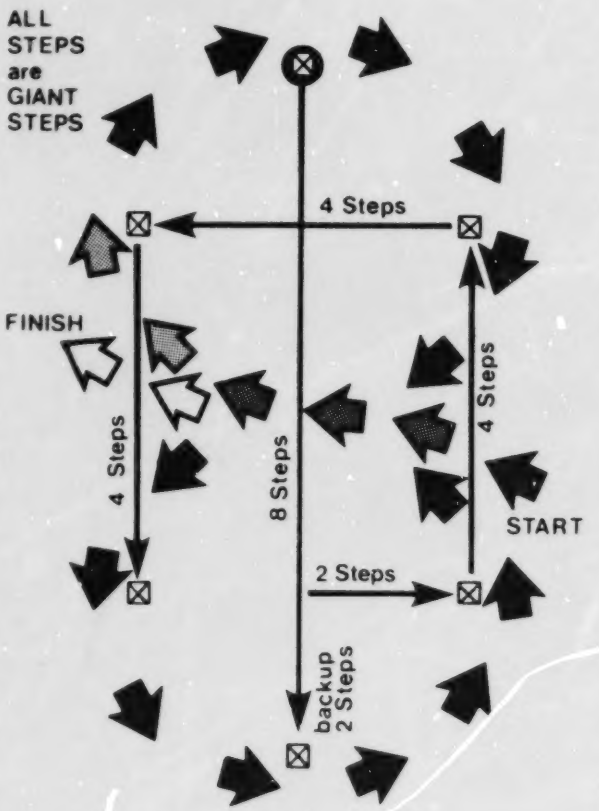
1. As the bicyclists complete the skills test, they will be directed to the exit table. If participants are being scored, collect their score sheets and tabulate their total scores.
2. As soon as registration has been completed, the registration rosters will be brought to the exit table. Transfer each bicyclist's total score from the score sheet to the registration roster.
3. Give each bicyclist the available handout material. Among the handout materials for all the participants should be the take-home practice sheet located on the following pages. Even if the bicyclists were not scored, check their names off the registration roster when you give them the handout material. This will guarantee that each bicyclist receives only one set of the handouts.
4. If prizes are to be awarded, review the registration roster(s) and determine prize winners. Identify the bicyclist who receives the highest score in each age group and circle his name and ID number.
5. If prizes are awarded, there are several different ways in which they may be presented. For small groups, bicyclists' names and/or ID number can be announced. They would, in turn, approach the exit table for their prize. The skills test coordinator might wish to be on hand to congratulate the bicyclists. For large groups, a more elaborate presentation can be planned with the skills test coordinator and other community leaders making the presentations in a final ceremony.

PRACTICE ON YOUR OWN

Today you tested your bicycling skills. Here are some bicycle activities you can do that use the same skills. All you need to set them up are something to use as markers. Empty milk cartons or paper cups work nicely. Remember to set the markers up some place that is away from traffic so that you won't get in the way of cars and cars won't get in your way. A vacant parking lot or a school yard playground can be a good place.

Have fun and safe biking!

FIGURE EIGHT

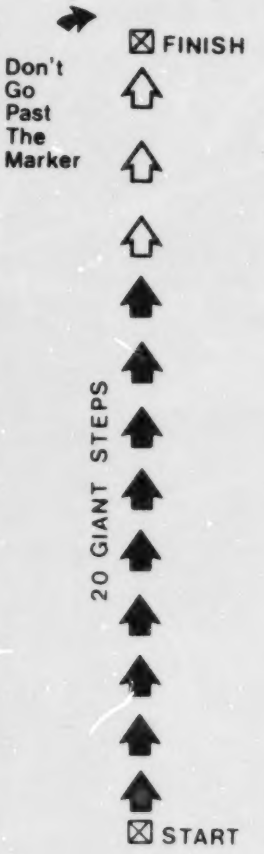


Compete with a friend or against yourself.

Move all the markers in to make it harder!

Follow the arrows when you ride. Go as close to the markers as you can. Make the complete Figure-8 without putting a foot down or knocking over a marker.

TURTLE RACE



See How LONG It Can Take You To Ride Between The Markers.

DON'T WOBBLE!

Time yourself with a watch, then try it again to see if you can go slower,

OR . . .

"Race" against a friend—the last one wins!

SLALOM RACE

All Steps
are
GIANT Steps

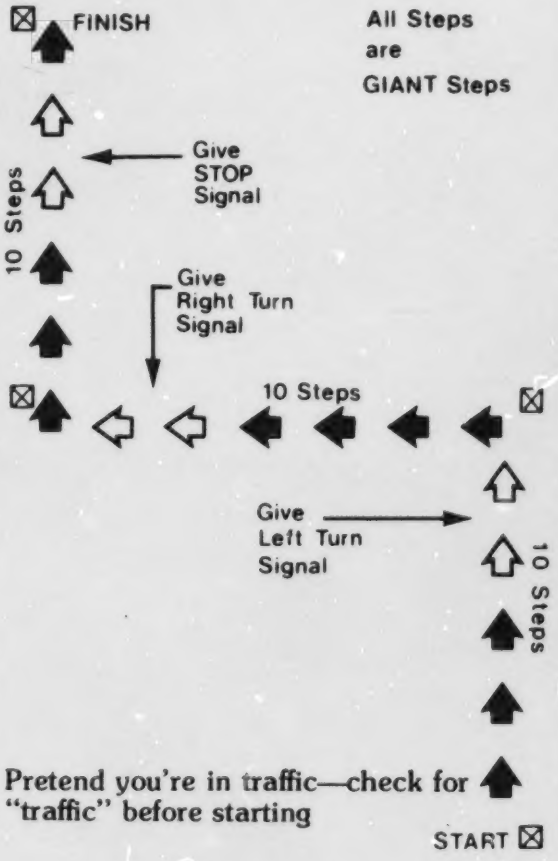
Time yourself with a watch to see how fast you can go without knocking over a marker,

OR . . .
Time a friend, then see if you can go faster.

Move the markers closer to make it harder.

Add more markers to make the course longer.

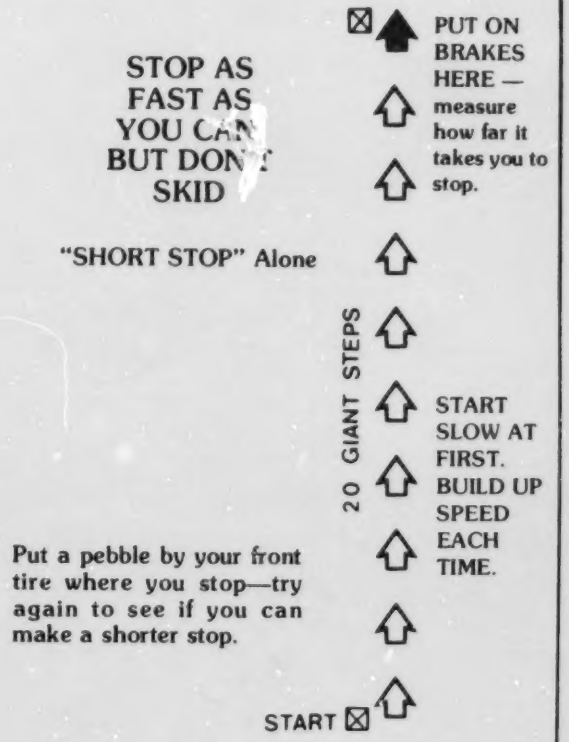
HAND SIGNAL PRACTICE



Pretend you're in traffic—check for "traffic" before starting

MAKE UP
YOUR OWN
PATTERNS
TOO!

SHORT STOP



Put a pebble by your front tire where you stop—try again to see if you can make a shorter stop.

"SHORT STOP" WITH FRIENDS Two persons ride, one other shouts, "STOP!" See how far the rider goes after "STOP!" command, switch and take turns being the rider and shouter.

Clean up

At the end of the activity, debris is removed, equipment returned and the area restored to its original condition. The manpower needed to clean up should be determined by the scope of the activity, and the anticipated number of participants.

RESOURCES

Aetna Life & Casualty
Audio Visual Resources
151 Farmington Avenue
Hartford, CT 06156

American Automobile Association
8111 Gatehouse Road
Falls Church, VA 22042

Bicycle Manufacturers Association of America
1101 15th Street, N.W.
Washington, DC 20005

4-H Safety Director
U.S. Department of Agriculture
Extension Service
Washington, DC 21250

Goodyear Tire and Rubber Company
Public Relations Department
Akron, OH 44316

Kemper Insurance Company
Route 22
Design Studio A-1
Long Grove, IL 60049

National Safety Council
444 North Michigan Avenue
Chicago, IL 60611

North Carolina Department of Transportation,
Bicycle Program
Room 317, Highway Building
P.O. Box 25201
Raleigh, NC 27611

Schwinn Bicycle Company
1856 North Kostner Avenue
Chicago, IL 60639

U.S. Consumer Product Safety Commission
Washington, DC 20207